

Review of the types of Indo-Pacific Triphoridae (Mollusca, Gastropoda) in the Muséum national d'Histoire naturelle, Paris

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ABSTRACT

We review the type specimens belonging to 71 species of Indo-Pacific Triphoridae Gray, 1847 stored in the Muséum national d'Histoire naturelle in Paris. We provide detailed information on the original description, a diagnosis according to the most recently recognized diagnostic characters, and curatorial and nomenclatorial notes. The lots of *Triforis* (*Iniforis*) *mirifica* var. *lifuana* Hervier, 1898, *Mastonia funebris* Jousseaume, 1884, *Mastonia issa* Jousseaume, 1898, *Inella numerosa* Jousseaume, 1898, *Mastonia obesula* Jousseaume, 1884, *Obesula pantherina* Jousseaume, 1898, *Mastonia peanites* Jousseaume, 1898, *Inella perimensis* Jousseaume, 1898, *Inella rossiteri* Jousseaume, 1884 and *Obesula senilis* Jousseaume, 1898 contained specimens belonging to multiple species and we here designate lectotypes to stabilize nomenclature. We invalidate the neotype designation of *T. pupaeformis* Deshayes, 1863 because of significant differences between the neotype and Deshayes' original description. *Triforis plicatus* Deshayes, 1834 is a Newtoniellidae Korobkov, 1955. Finally, we consider the name *Triphora lamyi* Selli, 1974 unavailable.

KEY WORDS

Mollusca,
Gastropoda,
Triphoridae,
Indo-Pacific province,
type specimens,
lectotype designations.

RÉSUMÉ

Revue des types de Triphoridae (Mollusca, Gastropoda) de l'Indo-Pacifique au Muséum national d'Histoire naturelle, Paris.

Nous passons en revue les spécimens types appartenant à 71 espèces de Triphoridae Gray, 1847 de l'Indo-Pacifique conservés au Muséum national d'Histoire naturelle de Paris. Nous fournissons des informations détaillées sur la description originale, une diagnose selon les caractères diagnostiques les plus récemment reconnus, et des notes sur la conservation et la nomenclature. Les lots de *Triforis* (*Iniforis*) *mirifica* var. *lifuana* Hervier, 1898, *Mastonia funebris* Jousseaume, 1884, *Mastonia issa* Jousseaume, 1898, *Inella numerosa* Jousseaume, 1898, *Mastonia obesula* Jousseaume, 1884, *Obesula pantherina* Jousseaume, 1898, *Mastonia peanites* Jousseaume, 1898, *Inella perimensis* Jousseaume, 1898, *Inella rossiteri* Jousseaume, 1884 et *Obesula senilis* Jousseaume, 1898 contenaient des spécimens appartenant à plusieurs espèces et nous désignons ici des lectotypes pour stabiliser la nomenclature. Nous invalidons la désignation du néotype de *T. pupaeformis* Deshayes, 1863 en raison de différences importantes entre le néotype et la description originale de Deshayes. *Triforis plicatus* Deshayes, 1834 est un Newtoniellidae Korobkov, 1955. Enfin, nous considérons que le nom *Triphora lamyi* Selli, 1974 n'est pas disponible.

MOTS CLÉS

Mollusques,
Gastropoda,
Triphoridae,
Province de l'Indo-
Pacifique,
spécimens types,
désignations
des lectotypes.

INTRODUCTION

Among marine molluscs, the microgastropod family Triphoridae Gray, 1847 is one of the “big five”, that is, the families with the largest number of species (Bouchet *et al.* 2002). Navigating this diversity is intimidating due to the subtle morphological differences and the large number of species encountered at single locations. For example, an exhaustive, despite not complete, survey of molluscs in Vanuatu yielded 259 species but only a small fraction could be identified (Albano *et al.* 2011). In addition, the nomenclature of the family is rich and complex with 812 names available for extant species, numerous homonyms and synonyms (Bakker & Albano 2022).

Foundational to taxonomic research is proper knowledge on name-bearing types. Despite the oldest type specimens may be in bad condition, often unsuitable to enable proper identification according to modern standards (Bouchet & Strong 2010), they still represent the only option for the correct interpretation of older authors' names, whose descriptions were rarely better than the specimens themselves. With this priority in mind, a series of studies on type specimens of family Triphoridae in European museums has been published in recent years (Albano & Bakker 2016; Albano *et al.* 2017, 2019; Bakker 2021).

This article deals with one of the largest collections of Triphoridae types worldwide, hosted at the Muséum national d'Histoire naturelle (MNHN) in Paris. This collection not only contains dozens of name-bearing types, but also those of prolific 19th century authors such as Deshayes, Hervier and Jousseaume who dealt with material from the Red Sea, the Indian and Pacific Oceans. Focusing our efforts on Indo-Pacific species, we here review and profusely illustrate with digital and scanning electron microscope imaging the types of 71 species with the aim to build an additional pillar of Triphoridae taxonomy.

MATERIAL AND METHODS

This study is based on a thorough revision of lots identified as containing type specimens of Indo-Pacific species stored in the MNHN type collection. We inspected every specimen contained in each lot in order to confirm the type status based on match with the original description and data on labels. Occasionally, lots contained specimens belonging to multiple species. In these cases, we selected lectotypes to stabilize the nomenclature in the context of the ongoing revision of Indo-Pacific Triphoridae by the authors (Albano & Bakker 2016; Albano *et al.* 2017, 2019, 2021; Bakker 2021; Bakker & Albano 2022). For this purpose, we prioritized specimens that were illustrated in the original description (Recommendation 74B). Lectotype designations follow the provisions of Art. 74 of the International Code of Zoological Nomenclature, 4th Edition. The specimens not belonging to the type series or not conspecific with the inspected species were separated. Any citation to the International Code of Zoological Nomenclature (ICZN 1999) should be considered to its online version, which includes all recent amendments.

Each specimen was photographed and measured with a Zeiss SteREO Discovery.V20 stereoscope and stacked with Helicon Focus 6. A selection was also imaged with scanning electron microscopy (SEM) without coating. SEM images of whole large specimens may appear slightly distorted and we suggest using optical images for appreciating shell shape. Specimens were not cleaned before imaging to avoid damage. Whenever possible, all diagnostic characters were targeted by taking shots of frontal, side and posterior shell views, and details of the microsculpture, the apex and the peristome. The entire image collection, including images not included in this paper, was delivered to the MNHN and will be available online on the MNHN collections website.

In this paper, species are arranged by author, and under each author they are listed alphabetically by species epithet. A taxon list in alphabetical order is provided in Table 1.

We always used original name combinations, not delving into generic placements. The depth of treatment in this work

TABLE 1. — List of treated taxa in alphabetic order, with original name, author and date and page and figure in this paper.

Taxon	Author and date	Page, Figure
<i>adamsi</i> , <i>Triphoris</i>	Deshayes, 1863	p. 16, Fig. 1
<i>aegle</i> , <i>Mastonia</i>	Jousseume, 1884	p. 61, Fig. 36
<i>algens</i> , <i>Mastonia</i>	Jousseume, 1898	p. 61, Fig. 37
<i>amoena</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 30, Fig. 12
<i>angustissimus</i> , <i>Triphoris</i>	Deshayes, 1863	p. 16, Fig. 2
<i>aurea</i> , <i>Triforis</i> (<i>Inella</i>)	Hervier, 1898	p. 30, Fig. 13
<i>bayani</i> , <i>Viriola</i>	Jousseume, 1884	p. 63, Fig. 38
<i>blainvilli</i> , <i>Inella</i>	Jousseume, 1884	p. 64, Fig. 39
<i>borbonica</i> , <i>Obesula</i>	Jousseume, 1898	p. 66, Fig. 40
<i>chaperi</i> , <i>Mastoniaeforis</i>	Jousseume, 1884	p. 66, Fig. 41
<i>cnodax</i> , <i>Mastonia</i>	Jousseume, 1884	p. 66, Fig. 42
<i>colzumensis</i> , <i>Euthymia</i>	Jousseume, 1898	p. 68, Fig. 43
<i>connatum</i> , <i>Cerithium</i>	Montrouzier, 1862	p. 103, Fig. 71
<i>cornuta</i> , <i>Triforis</i> (<i>Iniforis</i>)	Hervier, 1898	p. 30, Fig. 14
<i>crenulatus</i> , <i>Triphoris</i>	Deshayes, 1863	p. 16, Fig. 3
<i>distinctus</i> , <i>Triphoris</i>	Deshayes, 1863	p. 16, Fig. 4
<i>douvillei</i> , <i>Iniforis</i>	Jousseume, 1884	p. 71, Fig. 44
<i>ducensis</i> , <i>Mastonia</i>	Jousseume, 1884	p. 72, Fig. 45
<i>formosula</i> , <i>Triforis</i> (<i>Iniforis</i>)	Hervier, 1898	p. 34, Fig. 15
<i>formosus</i> , <i>Triphoris</i>	Deshayes, 1863	p. 19, Fig. 5
<i>fulvescens</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 34, Fig. 16
<i>funebri</i> , <i>Mastonia</i>	Jousseume, 1884	p. 72, Figs 46, 47
<i>hindsii</i> , <i>Triphoris</i>	Deshayes, 1863	p. 22, Fig. 6
<i>iniqua</i> , <i>Mastonia</i>	Jousseume, 1898	p. 72, Fig. 48
<i>intergranosa</i> , <i>Triforis</i> (<i>Viriola</i>)	Hervier, 1898	p. 35, Fig. 17
<i>interpictus</i> , <i>Mastonia</i>	Jousseume, 1898	p. 73, Fig. 49
<i>issa</i> , <i>Mastonia</i>	Jousseume, 1898	p. 75, Fig. 50
<i>jousseumei</i> , <i>Triforis</i> (<i>Iniforis</i>)	Hervier, 1898	p. 37, Fig. 18
<i>kosugei</i> , <i>Euthymella</i>	Marshall, 1983	p. 103, Fig. 70
<i>lamberti</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 38, Fig. 19
<i>lami</i> , <i>Triphora</i> (<i>Mastonia</i>)	Selli, 1974	p. 104, Fig. 72
<i>leucomys</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 40, Fig. 20
<i>limosa</i> , <i>Mastonia</i>	Jousseume, 1884	p. 77, Fig. 51
<i>loyaltyensis</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 43, Fig. 22
<i>lucidula</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 43, Fig. 23
<i>maenades</i> , <i>Mastonia</i>	Jousseume, 1898	p. 81, Fig. 53
<i>malvaceus</i> , <i>Iniforis</i>	Jousseume, 1884	p. 80, Fig. 52
<i>mariei</i> , <i>Inella</i>	Jousseume, 1884	p. 81, Fig. 54

Table 1. — Continuation.

Taxon	Author and date	Page, Figure
<i>mediotincta</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 46, Fig. 24
<i>melantera</i> , <i>Triforis</i> (<i>Inella</i>)	Hervier, 1898	p. 46, Fig. 25
<i>mirifica</i> var. <i>lifuana</i> , <i>Triforis</i> (<i>Iniforis</i>)	Hervier, 1898	p. 40, Fig. 21
<i>mirificus</i> , <i>Triphoris</i>	Deshayes, 1863	p. 22, Fig. 7
<i>monacha</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 46, Fig. 26
<i>montrouzieri</i> , <i>Triforis</i> (<i>Inella</i>)	Hervier, 1898	p. 50, Fig. 27
<i>morychus</i> , <i>Viriola</i>	Jousseume, 1898	p. 81, Fig. 55
<i>mus</i> , <i>Obesula</i>	Jousseume, 1898	p. 83, Fig. 56
<i>numerosa</i> , <i>Inella</i>	Jousseume, 1898	p. 85, Fig. 57
<i>obesula</i> , <i>Mastonia</i>	Jousseume, 1884	p. 86, Fig. 58
<i>ornatus</i> , <i>Triphoris</i>	Deshayes, 1832	p. 24, Fig. 8
<i>pantherina</i> , <i>Obesula</i>	Jousseume, 1898	p. 86, Fig. 59
<i>papillata</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 50, Fig. 28
<i>peanites</i> , <i>Mastonia</i>	Jousseume, 1898	p. 90, Fig. 60
<i>perimensis</i> , <i>Inella</i>	Jousseume, 1898	p. 90, Fig. 61
<i>perlatus</i> , <i>Triphoris</i>	Issel, 1869	p. 59, Fig. 35
<i>pupaeformis</i> , <i>Triphoris</i>	Deshayes, 1863	p. 24, Fig. 9
<i>quadrifurcata</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 51, Fig. 29
<i>reevei</i> , <i>Triphoris</i>	Deshayes, 1863	p. 27, Fig. 10
<i>regalis</i> , <i>Euthymia</i>	Jousseume, 1884	p. 91, Fig. 62
<i>rossiteri</i> , <i>Inella</i>	Jousseume, 1884	p. 94, Fig. 63
<i>rutilans</i> , <i>Triforis</i> (<i>Inella</i>)	Hervier, 1898	p. 53, Fig. 30
<i>senilis</i> , <i>Obesula</i>	Jousseume, 1898	p. 94, Fig. 64
<i>servaini</i> , <i>Mastonia</i>	Jousseume, 1884	p. 94, Fig. 65
<i>taeniolata</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 55, Fig. 31
<i>tibialis</i> , <i>Euthymia</i>	Jousseume, 1884	p. 97, Fig. 66
<i>tricolor</i> , <i>Mastonia</i>	Jousseume, 1884	p. 99, Fig. 67
<i>triliratus</i> , <i>Triphoris</i>	Deshayes, 1863	p. 27, Fig. 11
<i>trogodytes</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 55, Fig. 32
<i>tulipa</i> , <i>Mastonia</i>	Jousseume, 1898	p. 99, Fig. 68
<i>turricula</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 56, Fig. 33
<i>ustulata</i> , <i>Triforis</i> (<i>Mastonia</i>)	Hervier, 1898	p. 59, Fig. 34
<i>xystica</i> , <i>Inella</i>	Jousseume, 1884	p. 99, Fig. 69

depends on the age of the taxon (a proxy for the accuracy of descriptions and figures) and the amount of type material stored in the Museum or supposed to exist in other institutions. The species described before World War II and whose type material is stored exclusively in the MNHN are treated here in full detail. We give the species name in its original combination, followed by bibliographic details of the original description, the location of the known type material, the original description (and the translation of its latin text into English) and curatorial or nomenclatural notes. We also provide a diagnosis, focusing on the most significant diagnostic characters as discussed by Marshall (1983) and Albano *et al.* (2011). Whenever possible, we added the original figure to the plates. A briefer treatment has been devoted to the species whose type material is known to be stored also in other institutions (e.g. Marshall).

ABBREVIATIONS

coll.	collection;
AMS	Australian Museum, Sydney;
MNHN	Muséum national d'Histoire naturelle, Paris;

MSNG Museo Civico di Storia Naturale di Genova “G. Doria”;
NHMUK Natural History Museum of the United Kingdom, London.

TAXONOMIC INDEX

SYSTEMATIC LIST OF TAXA

Species described by J. Crosse and P.-H. Fischer

Type material of the species described by Joseph Crosse and Paul-Henry Fischer was supposed to be in the collections of the *Journal de Conchyliologie* at the MNHN (Dance 1966). However, the types of *Triphoris angasi* and *T. pfeifferi* were not found in Paris (Marshall 1983, V. Héros, pers. comm. July 2014). Specimens labelled as types of these two species were found in the NHMUK (Albano *et al.* 2019).

Species described by G. P. Deshayes

Gérard P. Deshayes described 11 species of triphorids, of which ten in his monograph on the molluscs of La Réunion in 1863. *Triforis plicatus* Deshayes, 1834 is a Newtoniellidae (Bakker & Albano 2022).

Triphoris adamsi Deshayes, 1863

(Fig. 1)

Triphoris adamsi Deshayes, 1863: 100, pl. 11, figs 23, 24.

TYPE LOCALITY. — La Réunion.

TYPE MATERIAL. — **Syntype. Reunion Island** • 1 specimen; MNHN-IM-2000-1579.

ORIGINAL DESCRIPTION. — *T. testa minima, elongato-turgidula, apice acuta, mucronata, omnino castaneo-fusca; anfractibus decimis, plano-convexiusculis, transversim trifariam granulosis, sutura angusta profunda distinctis; ultimo anfractu brevi, granulorum seriebus quinque ornato; apertura circulari, canali brevissimo et obliquo terminata.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Small shell, elongated and slightly inflated, with a narrow and pointed apex, completely chestnut-brown; ten slightly convex whorls with three series of granules and a deep, narrow and distinct suture; short last whorl, adorned by a series of five granules; circular aperture, ending with a short and oblique siphon.

DIAGNOSIS. — Shell conical with flat sides. Syntype here figured 5.0 mm high. Teleoconch of 10 whorls. Three spiral cords present, the second appearing on the seventh whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of weakly granulate fine threads. Base with two additional spiral cords; the first granulated and the second smooth. Multispiral protoconch of *c.* 5 whorls with two strong spiral keels and several equally strong axial riblets. First four whorls of the teleoconch white, the others light brown with darker spiral interspace. The last whorl lighter brown to white. Protoconch brown.

Triphoris angustissimus Deshayes, 1863

(Fig. 2)

Triphoris angustissimus Deshayes, 1863: 104, pl. 12, figs 1, 2.

TYPE LOCALITY. — Cap La Houssaye, Saint Paul, La Réunion.

TYPE MATERIAL. — **Neotype. Reunion Island** • MNHN-IM-2000-9488; designated by Jay (2007).

ADDITIONAL MATERIAL. — **Reunion Island** • MNHN-IM-2012-36195; 10 specimens; La Réunion (coll. M. Jay).

ORIGINAL DESCRIPTION. — *T. testa minima elongato-turrita, angustissima, regulariter conica, apice acuminata, nitidissima, albida, fusco inaequaliter marmorata; anfractibus quatuordecimis, planis, angustis, lentissime crescentibus, duplici ordine margaritarum ornatis; ultimo anfractu brevi, ad peripheriam angulato, basi plano; apertura ovato-rotunda, canali brevissimo terminata.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Small elongated and turreted shell, very narrow, regularly conical, with a sharp apex, bright, white and irregularly dark marbled; fourteen whorls, flattened, narrow, slowly growing, with two series of granules; short last whorl, angled at the periphery with a flat base; oval and rounded aperture, ending with a very short siphon.

DIAGNOSIS. — Shell very elongated with flat sides. Neotype 5.6 mm high. Teleoconch of 13 whorls. Two spiral cords present, the lower being more prominent. Cords with strong tubercles at the inter-

section with slightly prosocline axial ribs. Microsculpture of very fine spiral and axial threads crossing each other, giving a reticulate pattern. Peristome with an additional cord barely visible between the first and second cord. Posterior sinus deep. Base with two additional smooth spiral cords; the first weakly granulated towards the peristome. Paucispiral protoconch of *c.* 3 strongly angulated whorls bearing large tubercles along the spiral keel and near the sutures. First whorl of the teleoconch white to light yellowish, then bearing large yellow to brown blotches; tubercles generally lighter. Columella and siphonal canal brown.

REMARK. — Neotype illustrated in colour in Jay (2007).

Triphoris crenulatus Deshayes, 1863

(Fig. 3)

Triphoris crenulatus Deshayes, 1863: 99, pl. 11, figs 21, 22.

TYPE LOCALITY. — La Réunion.

TYPE MATERIAL. — **Syntype. Reunion Island** • MNHN-IM-2000-721; 1 specimen; from type locality.

ADDITIONAL MATERIAL. — **Reunion Island** • MNHN-IM-2000-720; 5 specimens; St. Pierre; coll. L. Vignal • MNHN-IM-2012-36200; 3 specimens; coll. M. Jay.

ORIGINAL DESCRIPTION. — *T. testa elongato-turrita, acuminata, transversim inaequaliter trilirata, lira majore, ad suturam posita, atque granulata, spira acuminata, sinistrorsa; anfractibus quatuordecimis, angustis, planulatis, albis, maculis rufo-castaneis, serialibus pictis atque crenulatis; ultimo anfractu brevi, basi planulato; apertura rotundata, labro in angulo posteriore profunde emarginato, canali terminali brevi, valde obliquo.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Elongated and turreted shell, narrow, sharp, with three unequal spiral cords, the largest cord is close to the suture and granulated, narrow spire, left-handed; fourteen narrow whorls, flat, white with red-brownish spots, coloured and crenulated cords; short last whorl, flat at the base; rounded aperture, the lip is strongly expanded in the posterior corner, short and very oblique.

DIAGNOSIS. — Shell cyrtocoid with flat sides. Syntype here illustrated 4.9 mm high. Teleoconch of 8 whorls. Three spiral cords and a fourth suprasutural cord present, the second cord appearing on the fourth whorl. First, second and suprasutural cords smooth, the more prominent third one with obtuse tubercles giving it an undulated appearance. The other cords becoming tubercled near the peristome. Microsculpture of several fine spiral threads in spiral interspaces. Peristome with additional cords developing near the peristome. Posterior sinus shallow. Base with an additional, weakly granulated, spiral cord. Protoconch of at least *c.* 5 whorls, their sculpture rather worn in the syntype, but apparently made of two spiral keels and several equally strong axial riblets. First teleoconch whorl white, the following ones with brown flammulae on a white background. Protoconch brown.

Triphoris distinctus Deshayes, 1863

(Fig. 4)

Triphoris distinctus Deshayes, 1863: 103, pl. 11, figs 30, 31.

TYPE LOCALITY. — Cap La Houssaye, Saint Paul, La Réunion.

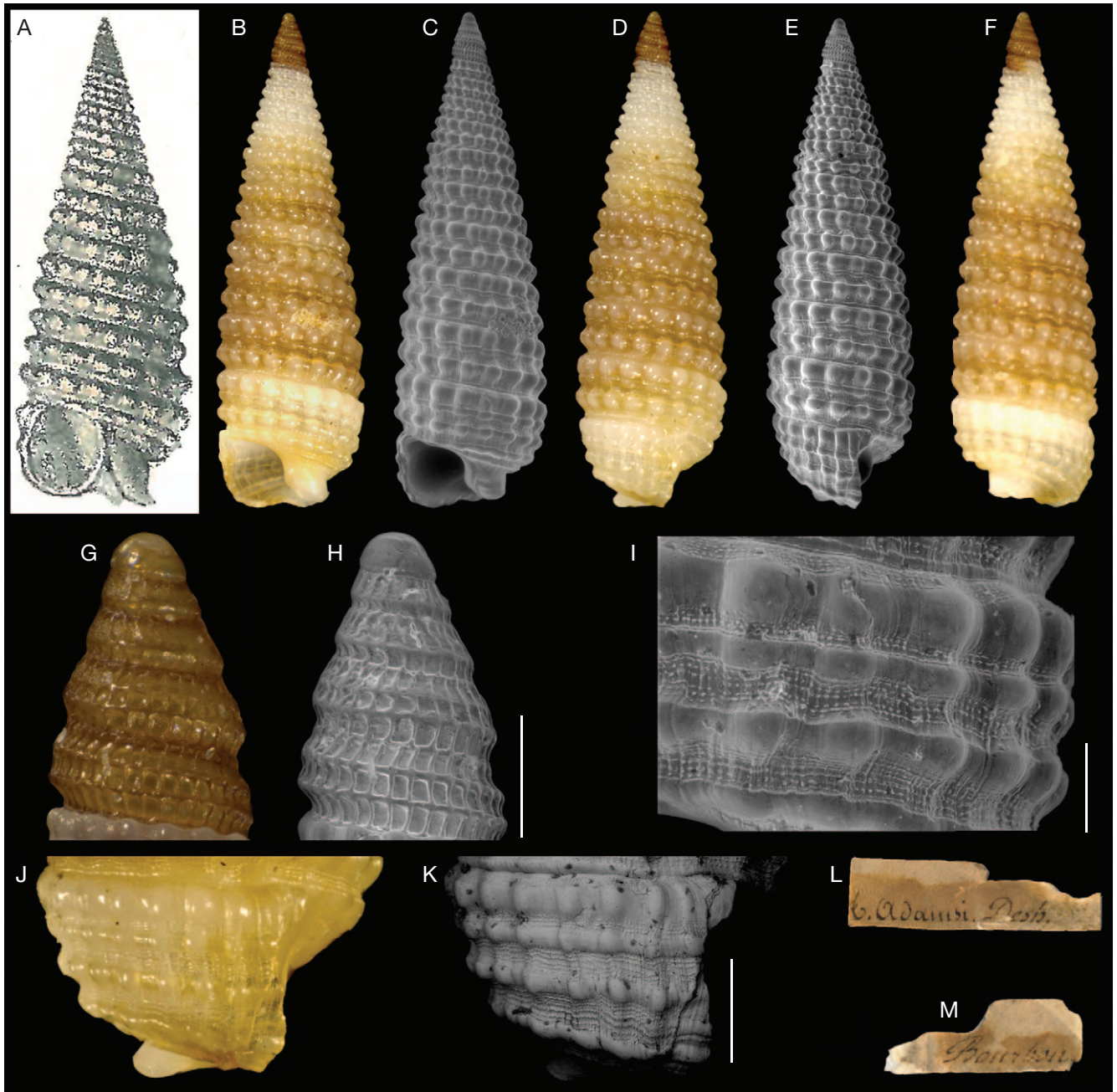


FIG. 1. — *Triphoris adamsi* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B–K**, syntype MNHN-IM-2000-1579; front (**B**, **C**), side (**D**, **E**), back (**F**), protoconch (**G**, **H**), teleoconch microsculpture (**I**), peristome (**J**, **K**); **L**, **M**, original labels. Scale bars: B–F, 1 mm; G–I, 0.2 mm; J, K, 0.4 mm.

TYPE MATERIAL. — **Neotype. Reunion Island •** MNHN-IM-2000-9489, designated by Jay (2007).

ADDITIONAL MATERIAL. — **Reunion Island •** MNHN-IM-2012-36201; 1 specimen; La Réunion (coll. M. Jay).

ORIGINAL DESCRIPTION. — *T. testa elongato-turrita, per longitudinem paulo convexa, omnino fusca, apice acuminata; anfractibus tredecimis, angustis, lente crescentibus, sutura profunda junctis, trifariam transversim, inaequilater granulosis, ultimo anfractu brevi, ad peripheriam subangulato, basi depresso, bisulcato; apertura circulari, canali breviusculo, aperto, obliquo, terminata.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Elongated and turreted shell, slightly longitudinally convex, completely brown, sharp apex; thirteen whorls, narrow, slowly increasing in size, with a deep suture and with three spiral cords unequally granulated, short last whorl, subangular at the periphery and depressed at the base, with two grooves; rounded aperture ending with a short, open and oblique siphon.

DIAGNOSIS. — Shell cyrtconoid with flat sides. Neotype 5.9 mm high. Teleoconch of 12 whorls. Three spiral cords present, the second appearing on the seventh whorl. Cords with tubercles at the intersection with slightly prosocline axial ribs. Second cord initially as a fine thread, then developing tubercles. Peristome without additional cords. Base with three additional smooth or weakly tubercled spiral cords. No visible microsculpture in interspaces. Multispiral

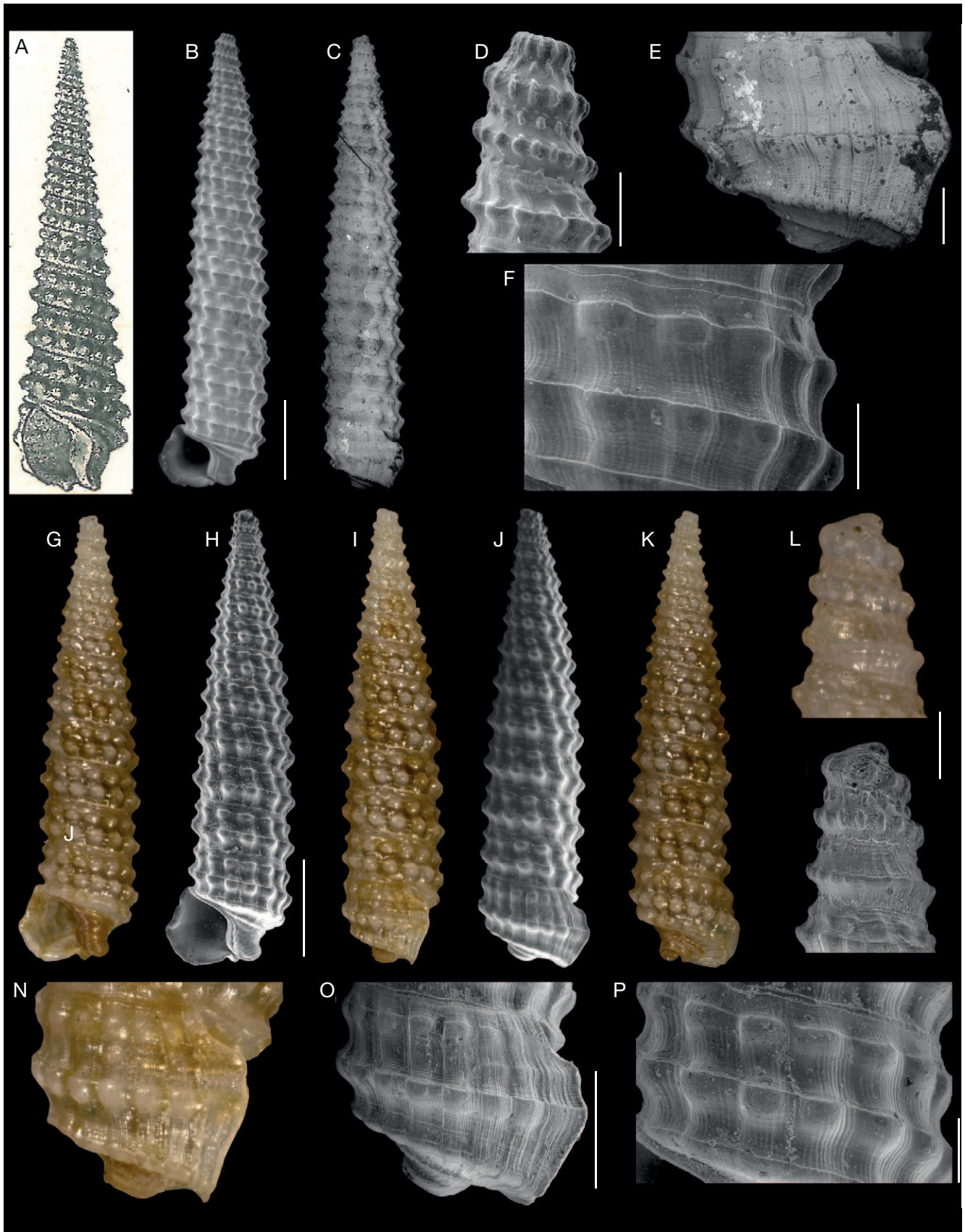


FIG. 2. — *Triplophorus angustissimus* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B-F**, Neotype MNHN-IM-2000-9488; front (**B**), side (**C**), protoconch (**D**), peristome (**E**), teleoconch microsculpture (**F**); **G-P**, MNHN-IM-2012-36195 (coll. M. Jay): front (**G**, **H**), side (**I**, **J**), back (**K**), protoconch (**L**, **M**), peristome (**N**, **O**), teleoconch microsculpture (**P**). Scale bars: B, C, G-K, 1 mm; D-F, L, M, P, 0.2 mm; N, O, 0.5 mm.

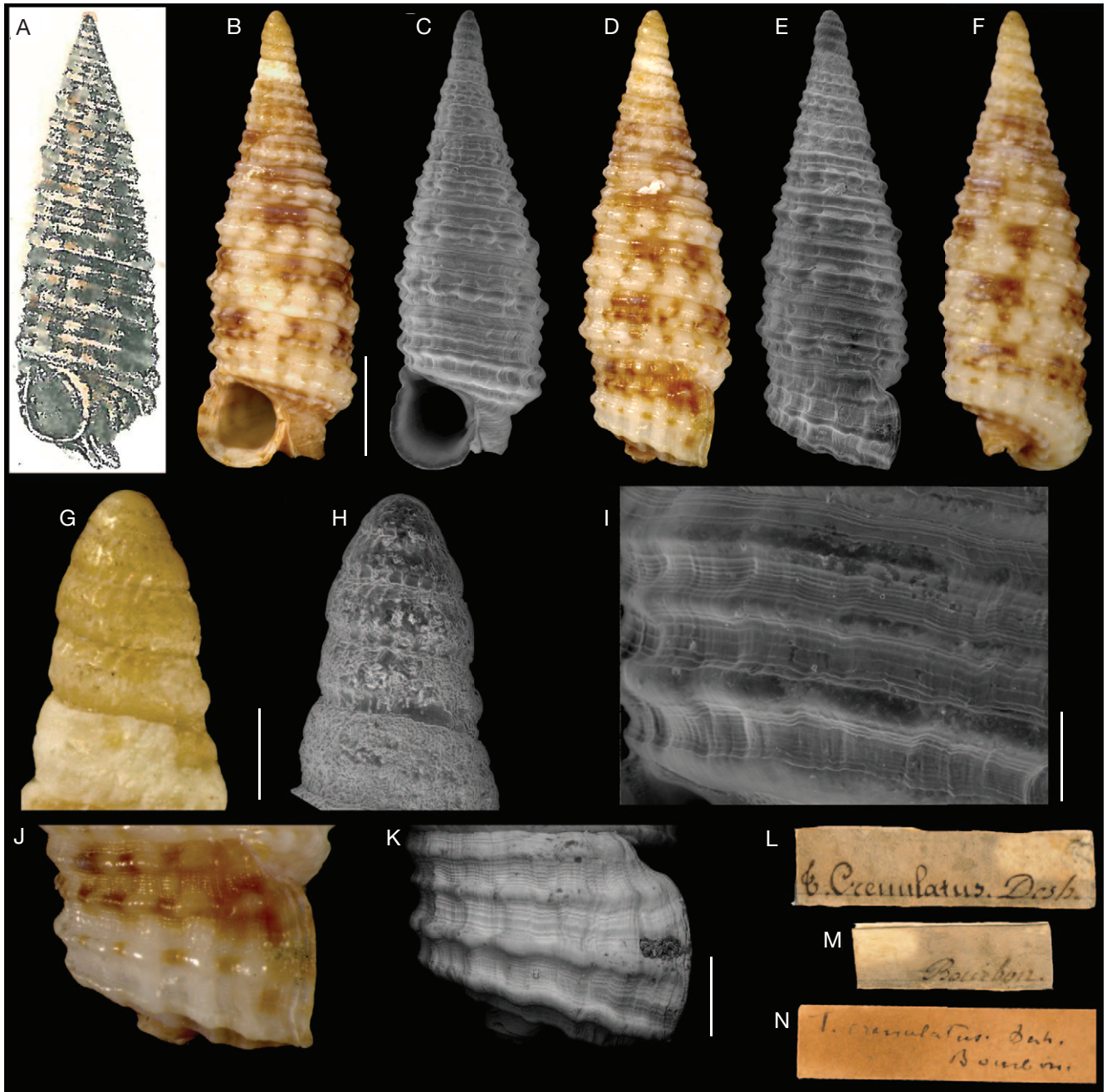


FIG. 3. — *Triphoris crenulatus* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B-K**, syntype MNHN-IM-2000-721: front (**B, C**), side (**D, E**), back (**F**), protoconch (**G, H**), teleoconch microsculpture (**I**), peristome (**J, K**); **L-N**, original labels. Scale bars: B-F, 1 mm; G-I, 0.2 mm; J, K, 0.4 mm.

protoconch of *c.* 4 whorls bearing one strong spiral keel and several equally strong axial riblets on the second to fourth whorl. First two teleoconch whorls white, the other brown with darker interspaces. Protoconch light brown.

REMARK. — Neotype illustrated in colour in Jay (2007).

Triphoris formosus Deshayes, 1863
(Fig. 5)

Triphoris formosus Deshayes, 1863: 102, pl. 11, figs 29.

TYPE LOCALITY. — Cap La Houssaye, Saint Paul, La Réunion.

TYPE MATERIAL. — **Neotype. Reunion Island • MNHN-IM-2000-9487**; designated by Jay (2007).

ADDITIONAL MATERIAL. — **Reunion Island • MNHN-IM-2012-36193**; 3 specimens; from type locality (coll. M. Jay).

ORIGINAL DESCRIPTION. — *T. testa elongato-turrita, subulata, pallide violacea; anfractibus quindecimis, planis, conjunctis, sutura canaliculata distinctis, duplici ordine granulorum ornatis, granulis aequalibus, albidis ornatis; ultimo anfractu brevi, coarctato, trifariam granuloso; apertura circulari, labro lateraliter profunde fisso.*

[Latin diagnosis followed by a discussion in French]

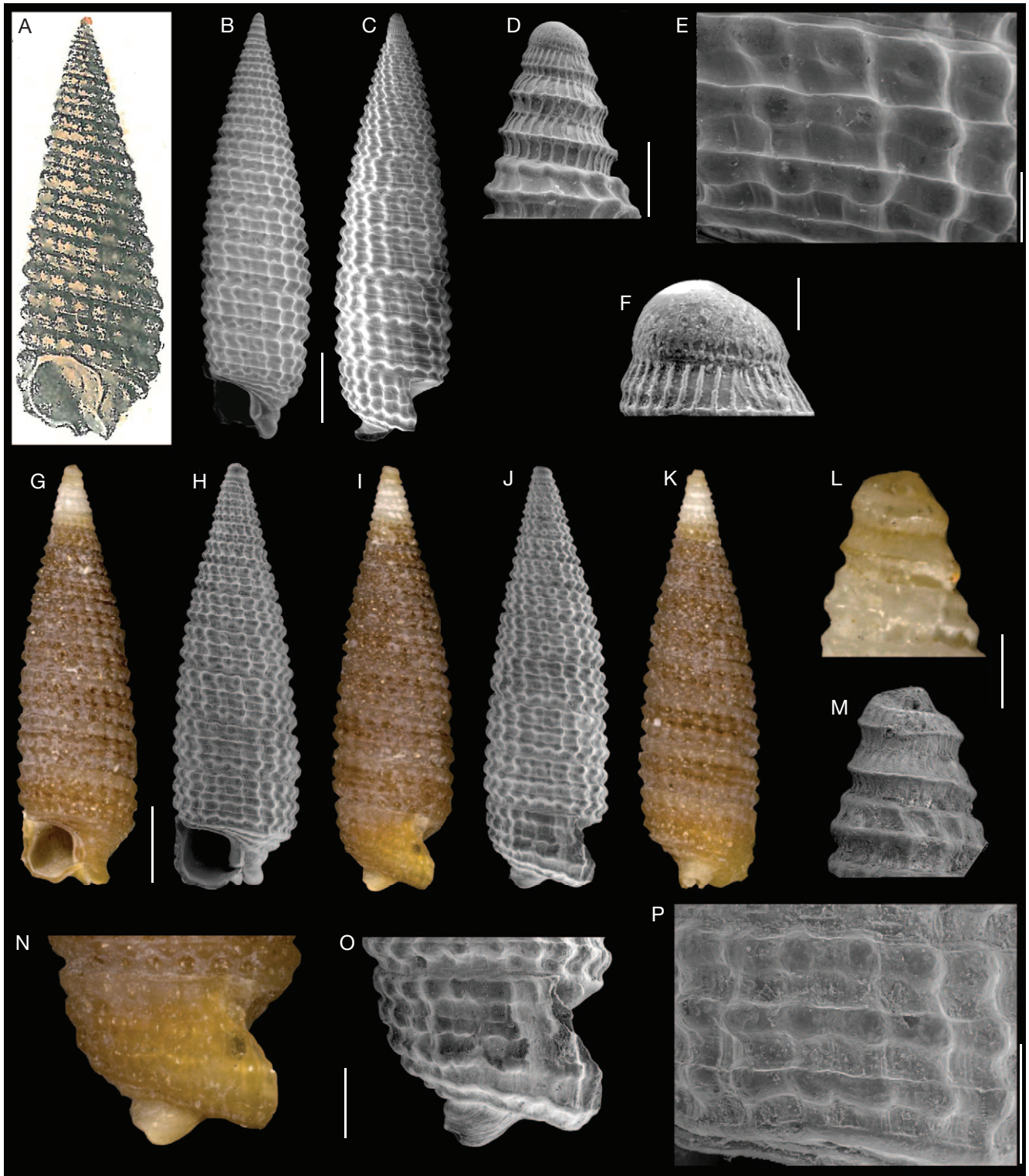


FIG. 4. — *Tripboris distinctus* Deshayes, 1863, La Réunion; **A**, original figure in Deshayes (1863); **B-F**, Neotype MNHN-IM-2000-9489; front (**B**), side (**C**), protoconch (**D**), teleoconch microsculpture (**E**), first protoconch whorl (**F**); **G-P**, MNHN-IM-2012-36201 (coll. M. Jay): front (**G**, **H**), side (**I**, **J**), back (**K**), protoconch (**L**, **M**), peristome (**N**, **O**), teleoconch microsculpture (**P**). Scale bars: B, C, G-K, 1 mm; D, E, L, M, 0.2 mm; F, 0.1 mm; N, O, 0.5 mm; P, 0.4 mm.

TRANSLATION OF THE LATIN TEXT. — Elongated and turreted shell, subulate, light violet; fifteen flat contiguous whorls, adorned by two spiral cords of light coloured and equal granules, channelled and distinct suture; short last whorl, narrow, with three granulated spiral cords; rounded aperture, lip laterally deeply fissured.

DIAGNOSIS. — Shell conical with flat sides. Teleoconch of 12 whorls. Neotype 6.1 mm high. Two spiral cords present bearing prominent tubercles at the intersection with slightly prosocline axial ribs. A fine spiral thread appearing only on the last whorl under the first cord. Microsculpture of numerous pustulose spiral threads

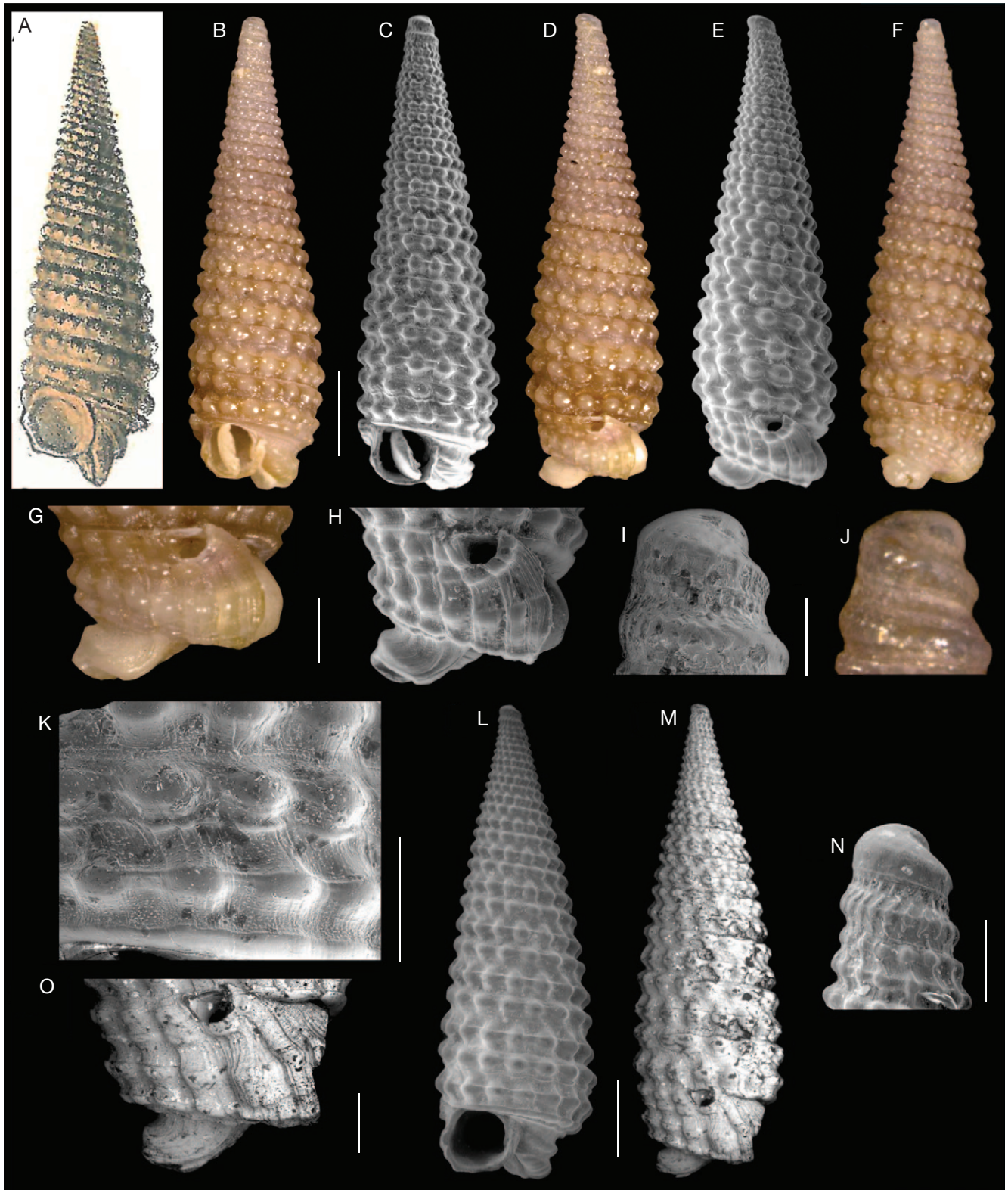


FIG. 5. — *Triphoris formosus* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B–K**, MNHN-IM-2012-36193 (coll. M. Jay): front (**B**, **C**), side (**D**, **E**), back (**F**), peristome (**G**, **H**), protoconch (**I**, **J**), teleoconch microsculpture (**K**); **L–O**, Neotype MNHN-IM-2000-9487; front (**L**), side (**M**), protoconch (**N**), peristome (**O**). Scale bars: B–F, L, M, 1 mm; G–K, 0.4 mm; N, O, 0.2 mm.

in interspaces. Peristome without additional cords. Posterior sinus well developed and protruding as a very short canal. Base with two additional spiral cords of which the first becomes granulated near

the lip and the second smooth. Paucispiral protoconch of *c.* 2 whorls with one strong spiral keel and low axial riblets. Upper part of the teleoconch pinkish, lower half of the teleoconch pink to light brown

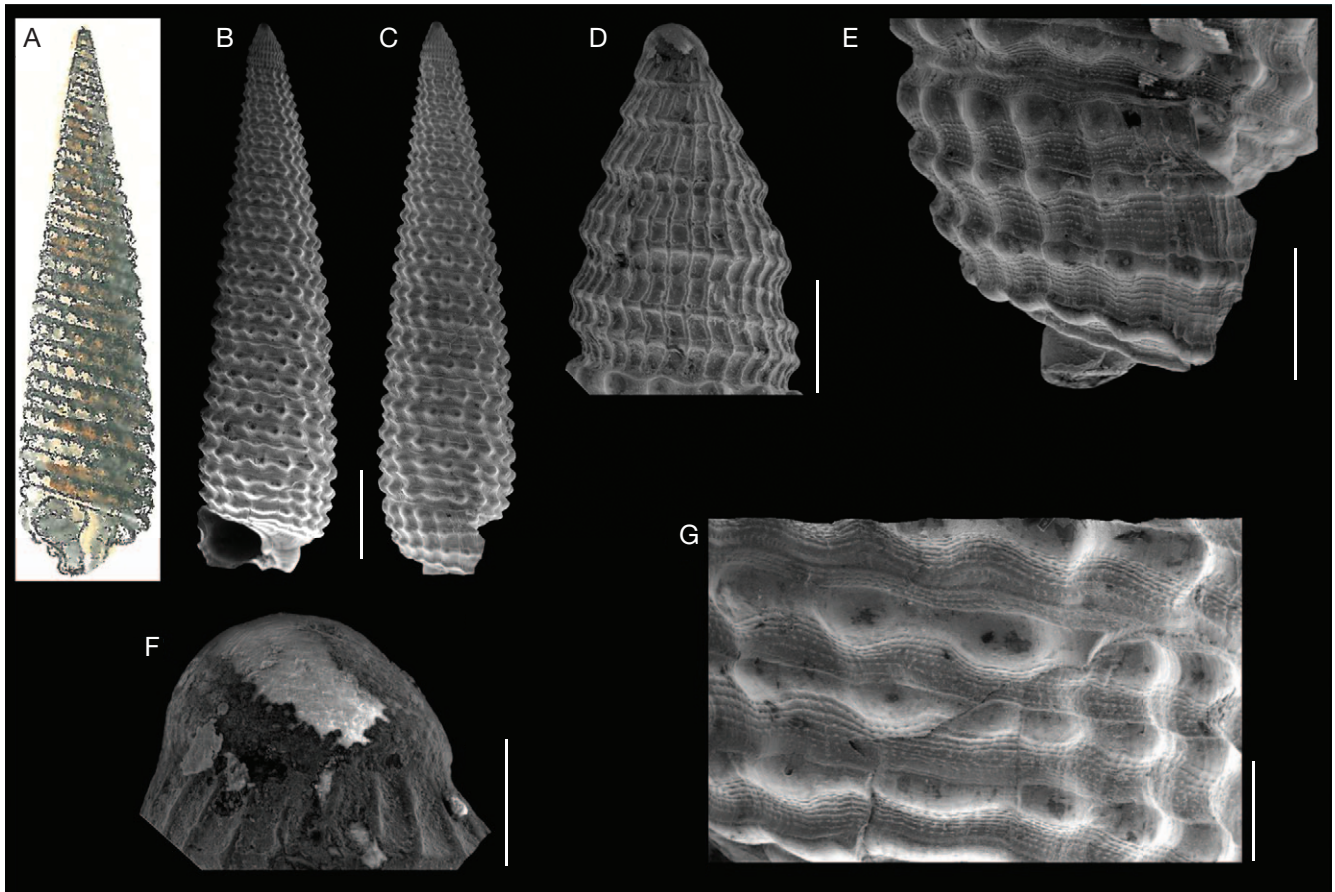


FIG. 6. — *Triphoris hindsii* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B–G**, Neotype: MNHN-IM-2000-9490 front (**B**), side (**C**), protoconch (**D**), peristome (**E**), first protoconch whorl (**F**), teleoconch microsculpture (**G**). Scale bars: B, C, 1 mm; D, G, 0.2 mm; E, 0.4 mm; F, 0.05 mm.

with darker interspaces between tubercles on the lower whorls. Protoconch pinkish.

REMARK. — Neotype illustrated in colour in Jay (2007). Lot MNHN-IM-2012-36193 contains a fourth specimen that is distinctly different from *T. formosus* and certainly belongs to another species.

Triphoris hindsii Deshayes, 1863
(Fig. 6)

Triphoris hindsii Deshayes, 1863: 98, pl. 11, figs 19, 20.

TYPE LOCALITY. — La Réunion.

TYPE MATERIAL. — Neotype. Reunion Island • MNHN-IM-2000-9490 (gold coated), designated by Jay (2007).

ORIGINAL DESCRIPTION. — *T. testa turrita, sinistrorsa, elongato-angusta, apice valde acuminata, pallide fusca; anfractibus duodecimis, angustis, lente crescentibus, trifariam granulosis, granulis albescentibus, subaequalibus, ultimo anfractu brevi; apertura minima, canali brevi obliquissimo terminata.*

TRANSLATION OF THE LATIN TEXT. — Turreted shell, elongated, narrow with a strongly sharp apex, light brown; twelve whorls, narrow, slowly growing, with three spiral cords of whitish and subequal granules, the last whorl is short; small aperture, ending with a short and very oblique siphon.

DIAGNOSIS. — Shell conical with flat sides. Neotype 3.7 mm high. Teleoconch of 8 whorls. Three spiral cords present, the second appearing on the fifth whorl. Cords with tubercles at the intersections with slightly prosocline axial ribs. Second cord initially as a fine thread, developing tubercles later. Spiral microsculpture of weakly granulate fine threads. Peristome and posterior sinus damaged in the neotype. Base with two additional spiral cords; the first granulated and the second smooth. Multispiral protoconch of *c.* 5.5 whorls with two strong spiral keels and several equally strong axial riblets. First two teleoconch whorls white, then pinkish to light violet. Protoconch brown.

REMARK. — Neotype illustrated in colour by Jay (2007).

Triphoris mirificus Deshayes, 1863
(Fig. 7)

Triphoris mirificus Deshayes, 1863: 104, pl. 11, figs 32, 33.

TYPE LOCALITY. — Cap La Houssaye, Saint Paul, La Réunion.

TYPE MATERIAL. — Neotype. Reunion Island • MNHN-IM-2000-9491, designated by Jay (2007).

ADDITIONAL MATERIAL. — MNHN-IM-2012-36198; 6 specimens; from type locality (coll. M. Jay).

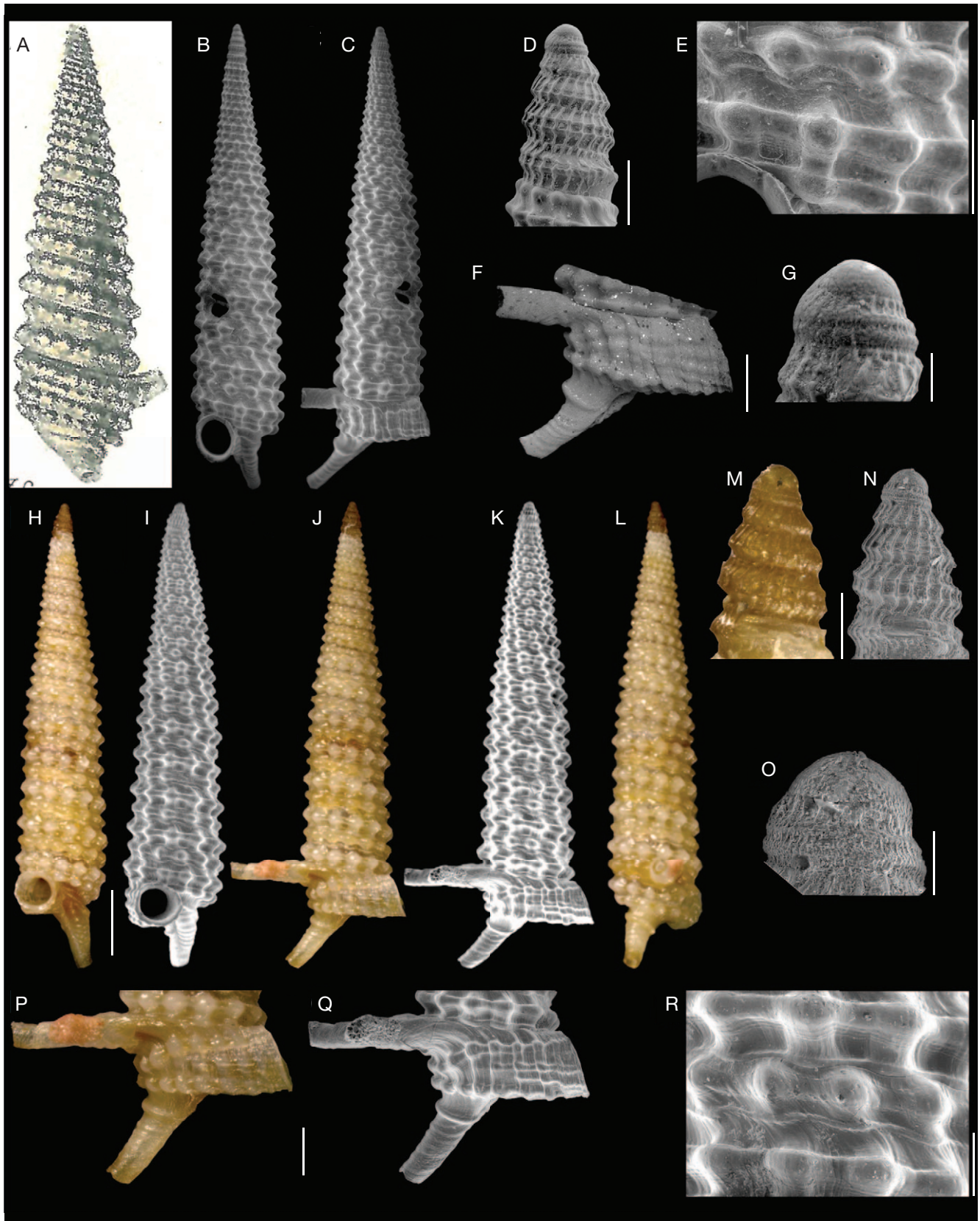


FIG. 7. — *Triphoris mirificus* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B–G**, Neotype MNHN-IM-2000-9491; front (**B**), side (**C**), protoconch (**D**), teleoconch microsculpture (**E**), peristome (**F**), first protoconch whorl (**G**); **H–R**, MNHN-IM-2012-36198 (coll. M. Jay): front (**H**, **I**), side (**J**, **K**), back (**L**), protoconch (**M**, **N**), first protoconch whorl (**O**), peristome (**P–Q**), teleoconch microsculpture (**R**). Scale bars: B, C, H–L, 1 mm; F, P–Q, 0.5 mm; E, R, 0.4 mm; D, M, N, 0.2 mm; G, O, 0.05 mm.

ORIGINAL DESCRIPTION. — *T. testa elongato-angusta, turrita, apice acuminata, albo-lutescente; anfractibus quindecimis, angustis, lentissime crescentibus, liris duabus inaequalibus granulosis pellucidis, ornatis, ultimo longiusculo quadrifariam granuloso, basi depresso; apertura minima, circulari, posterius canali praelongo terminata, canali antico elongato, omnino clauso, valde obliquo.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Elongated and narrow shell, turreted, with a sharp apex, white-yellowish; fifteen narrow whorls, growing very slowly, with two spiral cords adorned by translucent and unequal granules, quite high last whorl with four spiral cords of granules and depressed at the base; small aperture, rounded, posterior siphon quite long, the anterior siphon is elongated, completely closed and strongly oblique.

DIAGNOSIS. — Shell very elongated with flat sides. Neotype 7.2 mm high. Teleoconch of 15 whorls. Two spiral cords present with the lower being more prominent. Cords with strong tubercles at the intersections with slightly prosocline axial ribs. Microsculpture of very fine spiral threads, but only present on the upper half of the intersections between the cords. Peristome with up to three additional cords, one between the first and second cord, and two below the second cord. Posterior sinus well developed and protruding as a long canal. Siphonal canal long as well. Base with one additional tubercled cord. Multispiral protoconch of c. 5.5 whorls with two strong spiral keels and strong axial riblets. Nucleus with two keels and fine axial riblets on the second whorl. First two teleoconch whorls white, the following ones with light brown flammulae on a white background, intersections between tubercles light brown. Protoconch brown.

REMARK. — Neotype illustrated in colour in Jay (2007).

Triphoris ornatus Deshayes, 1832 (Fig. 8)

Triphoris ornatus Deshayes, 1832: 1053, not illustrated.

TYPE LOCALITY. — Unknown.

TYPE MATERIAL. — Not found (see Remarks).

ADDITIONAL MATERIAL. — Reunion Island • MNHN-IM-2000-483; 1 specimen; apparently from the Red Sea.

No clear locality indicated • MNHN-IM-2000-503; 4 specimens.

ORIGINAL DESCRIPTION. — *Tr. testâ sinistrorsâ, elongato-turritâ, apice acutâ, basi angustâ, in medio laeviter inflatâ; anfractibus numerosis, planis, biserialim granulosis; granulis superioribus rufis, alteris albidis; aperturâ rotundatâ, submarginatâ; siphon posticali brevi, simplici.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Sinistrorse triphorid shell, elongated and turreted, with sharp apex, narrow base, in the middle slightly inflated; numerous whorls, flat, with two tubercled spiral cords; upper tubercles red, the others white; circular aperture, with lip; posterior siphonal canal short, simple.

REMARKS. — The MNHN hosts two lots that have been assigned to this taxon. Apart from some very ruined shells in lot MNHN-IM-2000-503 (Fig. 8R-T), whose conditions prevent any comparison, one specimen in this lot (Fig. 8H-P, V) and the specimen in lot MNHN-IM-2000-483 (Fig. 8A-G, Q) share the same colour pattern of a brown or orange second spiral cord on white background. Deshayes indeed stated that the “upper” spiral cord is reddish and the rest white (“granulis superioribus rufis, alteris albidis”). The meaning of “upper” is ambiguous. We noticed also in some

descriptions by Jousseaume that “upper” was occasionally used for the second cord, and we wonder if this is not a relic of the early days when shells were depicted with the spire downwards (and thus the second spiral cord up). That is, if Deshayes actually meant by “upper” closer to the aperture, both specimens may fit the original description. Still, the two specimens likely belong to two different species, the original locality is not stated, and the original description may fit multiple known species. Therefore, the correct identity of *Triphoris ornatus* is very hard to define, unless some unambiguous type material shows up.

Triphoris pupaeformis Deshayes, 1863 (Fig. 9)

Triphoris pupaeformis Deshayes, 1863: 105, pl. 12, figs 3-4.

TYPE LOCALITY. — La Réunion.

TYPE MATERIAL. — Not found (but see Remark).

ADDITIONAL MATERIAL. — Reunion Island • *Triphora* aff. *pupaeformis*: MNHN-IM-2000-479; 2 specimens; La Réunion (coll. Vignal) • MNHN-IM-2012-36192; 1 specimen; Cap La Houssaye, La Réunion (coll. Jay).

ORIGINAL DESCRIPTION. — *T. testa brevi, ovato-oblonga, cylindraco-pupaeformi, apice mucronata, proboscidea, atro-fusca; anfractibus duodecimis, angustissimis, lentissime crescentibus, sutura canaliculata vix distinctis, bifariam granulosis, granulis paulo albescentibus, appressis, ultimo brevissimo, basi bisulcata, canali brevi terminato; apertura ovato-rotunda, lateraliter brevi fissurata.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Short shell, ovate-elongated, cylindrical-pupoid with a pointed and elongated apex, dark brown; twelve whorls, very narrow and growing very slowly, with a channelled and strongly distinct suture and with two spiral cords of slightly whitish and flattened granules, very short last whorl, with two grooves at the base, short siphon; ovate-rounded aperture, laterally shortly fissured.

REMARKS. — A neotype of *T. pupaeformis* was designated by Jay (2007) (inventory number MNHN-IM-2000-9492, Fig. 9G, I). However, there are significant differences between Jay's neotype and Deshayes' original description. *T. pupaeformis* is described as bearing two spiral cords (“bifariam granulosis”) and, importantly, the suture has the same size of the interspace between the spiral cords (“la suture qui les réunit est à peine distincte quoique profonde, parce qu'elle est absolument semblable à l'intervalle qui sépare les deux rangées de granulations dont les tours sont chargés”). In contrast, the designated neotype has three spiral cords on the lower half of the shell, the second starting as a fine thread and becoming fully grown only on the last whorl. This implies, however, that the interspace between the cords, even at mid-shell height, is much broader than the suture. Additionally, Deshayes described the shell as dark brown (“atro fusca”) with whitish tubercles (“granulis paulo albescentibus”) which are broad and very close one to each other (“ces granulations sont comme écrasées, larges, épaisses, très-rapprochées, blanchâtres vers le sommet”). The designated neotype has small and well-spaced tubercles, which are whitish only on the third spiral cord and on the last whorl. Therefore, we consider that the designated neotype does not match Deshayes' *T. pupaeformis* and propose to invalidate such designation. *Triphoris pupaeformis* closely resembles *T. crassula* von Martens, 1880, whose locus typicus is Mauritius (lectotype illustrated by Albano & Bakker (2016)). However, also *Obesula borbonica* Jousseaume, 1898 from the Red Sea and La Réunion, *T. triticea* Pease, 1861, from Hawaii, *Opimaphora albogemmata* Laseron, 1958, from the Capricorn group, Great Barrier Reef,

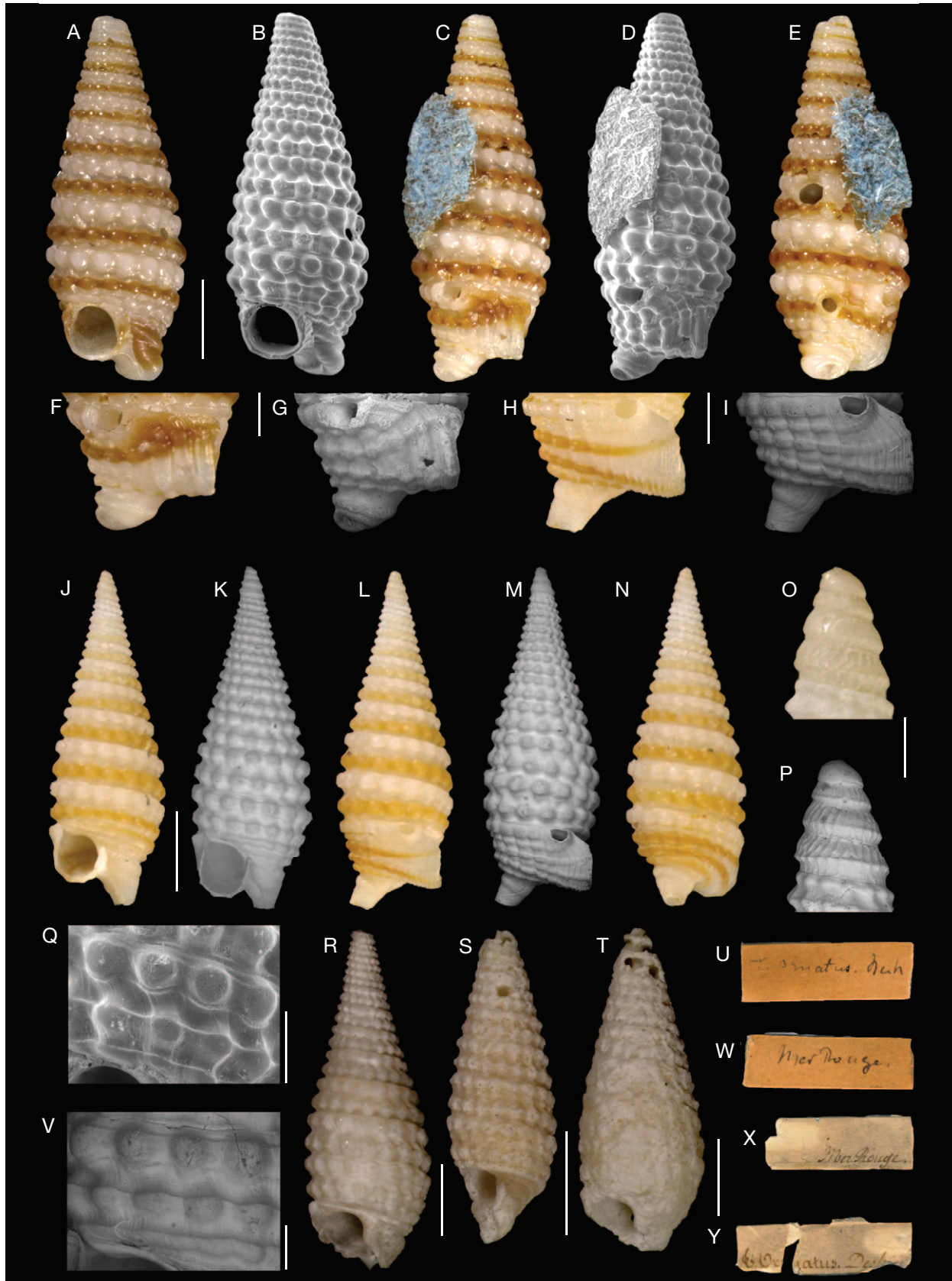


FIG. 8. — Specimens in lots labelled as *Triphoris ornatus* Deshayes, 1863: **A-G, Q**, *Triphoridae* sp. 1, MNHN-IM-2000-483, Red Sea (?): front (**A, B**), side (**C, D**), back (**E**), peristome (**F, G**), teleoconch microsculpture (**Q**); **H-P, V**, *Triphoridae* sp. 2, MNHN-IM-2000-503, unspecified Locality. Peristome (**H, I**), front (**J, K**), side (**L, M**), back (**N**), protoconch (**O, P**), teleoconch microsculpture (**V**); **R-T**, Unidentifiable *Triphoridae*, MNHN-IM-2000-503, unspecified Locality. Front views; **U, W-Y**, original labels MNHN-IM-2000-483. Scale bars: A-E, J-N, R-T, 1 mm; F-I, Q, V, 0.4 mm; O, P, 0.2 mm.

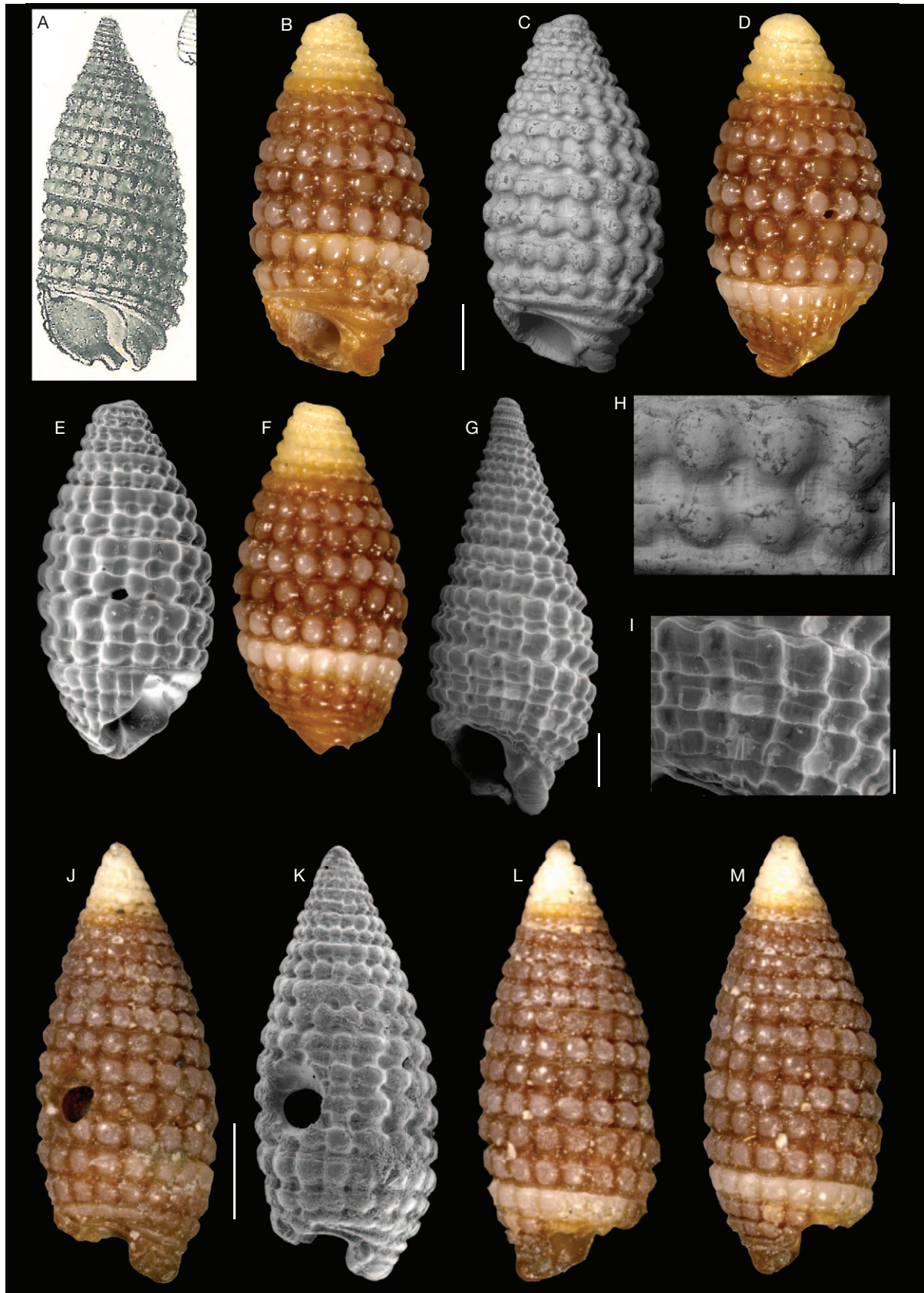


FIG. 9. — *Triphoris pupaeformis* Deshayes, 1863: **A**, original figure in Deshayes (1863); **B-F, H**, *Triphoris* aff. *pupaeformis* Deshayes, 1863, La Réunion, MNHN-IM-2000-479 (coll. Vignal): front (**B, C**), side (**D, E**), back (**F**), teleoconch microsculpture (**H**); **G, I**, *Triphoridae* sp. (non *pupaeformis*), MNHN-IM-2000-9492; front (**G**), teleoconch microsculpture (**I**); **J-M**, *Triphoris* aff. *pupaeformis* Deshayes, 1863, La Réunion, MNHN-IM-2012-36192 (coll. M. Jay): front (**J, K**), side (**L**), back (**M**). Scale bars: B-G, 0.5 mm; H, 0.4 mm; I, 0.2 mm; J, K, 1 mm.

Australia, belong to this species group but their relations are still unclear. In the Vignal (MNHN-IM-2000-479) and Jay (MNHN-IM-2012-36192) collections, there are two and one specimens, respectively, similar to *T. pupaeformis* from Reunion, characterized by two spiral cords with the prominent, closely arranged, whitish tubercles on brown background (Fig. 9A-G and J, K, respectively). The lot MNHN-IM-2000-479 from the Vignal collection contains two more specimens that belong to another species, because they have three spiral cords.

Triphoris reevei Deshayes, 1863
(Fig. 10)

Triphoris reevei Deshayes, 1863: 101, pl. 11, figs 25, 26.

TYPE LOCALITY. — Cap La Houssaye, Saint Paul, La Réunion.

TYPE MATERIAL. — **Neotype**. Reunion Island • MNHN-IM-2000-9493; designated by Jay (2007).

ADDITIONAL MATERIAL. — MNHN-IM-2012-36190; 5 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. testa elongata, angusta, turrita, apice acuminata, albida; anfractibus primis nigro tinctis, quindecimis, angustis, planulatis, biserialiter granulosus, granulis obtusis, inaequalibus, inferioribus minoribus, valde separatis, ultimo anfractu brevi, basi planulato; apertura subcirculari, peristomate continuo, lateraliter emarginato et breviter canaliculato, canali terminali clauso, paulo obliquo.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Elongated shell, narrow and turreted with an acute apex, white; first whorls brown coloured, fifteen narrow and flattened whorls with two spiral cords of granules, these are unequal, obtuse, strongly separated and the inferior ones are smaller, short last whorl, flattened at the base; almost round aperture, continuous peristome, laterally expanded and shortly channelled, siphon closed and slightly oblique.

DIAGNOSIS. — Shell cyrtococonoid with flat sides. Neotype 5.8 mm high. Teleoconch of 12 whorls. Three spiral cords present, the first and third bearing prominent tubercles at the intersections with slightly prosocline axial ribs. Second cord appearing as a fine spiral thread only on the last two whorls under the first cord, becoming more tubercled on the peristome. Microsculpture of weak spiral threads in interspaces. Peristome with additional cords below the second and third cord. Posterior sinus deep. Base with two additional tubercled spiral cords. Multispiral protoconch of *c.* 4 whorls with two spiral keels and multiple axial riblets. Teleoconch ivory white, first spiral cord on lower whorls paler. Back side of the siphonal canal with a dark brown to black spot. Protoconch brown.

REMARK. — Neotype illustrated in colour in Jay (2007).

Triphoris triliratus Deshayes, 1863
(Fig. 11)

Triphoris triliratus Deshayes, 1863: 102, pl. 11, figs 27, 28.

TYPE LOCALITY. — La Réunion.

TYPE MATERIAL. — **Syntypes** (but see Remarks). Reunion Island • MNHN-IM-2000-1576; 1 specimen; from type locality • MNHN-IM-2000-1577; 3 specimens; from type locality • MNHN-IM-2000-1578; 1 specimen; from type locality.

ADDITIONAL MATERIAL. — **Reunion Island** • MNHN-IM-2012-36197; 1 specimen; La Réunion (coll. M. Jay).

ORIGINAL DESCRIPTION. — *T. testa elongato-turrita, omnino castaneofusca, apice acuminata; anfractibus tredecimis, transversim aequaliter triliratis, liris simplicibus, interstitiis minutissime punctulatis, ultimo anfractu brevi, ad peripheriam angulato, basi plano; apertura minima, subquadrata, canali brevi terminata.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Elongated and turreted shell, completely dark brown, acute apex; thirteen whorls, with three equal and simple spiral rows, the interspaces bear very small cavities, short last whorl, angulated at the periphery, flattened at the base; small squarish aperture, ending with a short siphon.

DIAGNOSIS. — Shell cyrtococonoid with flat sides. Syntypes 3.2–5.0 mm high. Teleoconch of 8–10 whorls. Three spiral cords present, the second appearing on the second whorl. First and third cords smooth, the second developing flat tubercles. Microsculpture of numerous fine spiral threads in spiral interspaces. Peristome with an additional cord below the second cord. Posterior sinus shallow. Base with two additional smooth spiral cords. Protoconch missing in the syntypes. Teleoconch whorls with brown flammulae on a white background. The first thread is darker. Protoconch brown.

REMARKS. — The specimens marked as syntypes belong to different species. Lot MNHN-IM-2000-1576 (Fig. 11B-I) contains the specimen best matching the original description and figure but lacks the uniform brown colour cited in the original description (“*omnino castaneofusca*”). Lot MNHN-IM-2000-1577 contains three specimens belonging to two species different from *T. triliratus*: two are fragments that have the second spiral cord just as a fine thread (Fig. 11K, L), the third is probably a *Viriolopsis* B. A. Marshall, 1983 (Fig. 11M). Lot MNHN-IM-2000-1578 contains a damaged specimen which is probably *T. intergranosa* Hervier, 1898 (Fig. 11N). This situation would require the designation of a lectotype. However, we still do not know the intraspecific variability of this species-group and thus if the syntype MNHN-IM-2000-1576 can really belong to *T. triliratus* as described. Therefore, we prefer to avoid any designation until the group is better understood.

SPECIES DESCRIBED BY J. HERVIER

Jean Hervier published the description of several new species from New Caledonia in a series of articles in the *Journal de Conchyliologie*. Triphorids were mostly treated in his monographic article in volume 45. Despite the publication date on the *Journal de Conchyliologie* cover is 1 October 1897, its actual date of publication is 9 April 1898 (Fischer-Piette 1937; Coan & Kabat 2016). Hervier treated triphorids again in his article in volume 46 (publication date on issue: 1898, but actually published in 1899) where he also provided detailed and beautiful colour illustrations of most of the species he had introduced in 1898. In this 1899 article, he introduced the new variety *basirufa* of *Triforis amoena* Hervier, 1898. Of the 33 new names he introduced, including varieties which are here considered having subspecific rank according to art. 45.6.4 of the ICZN code (ICZN 1999), we found type material of 25.

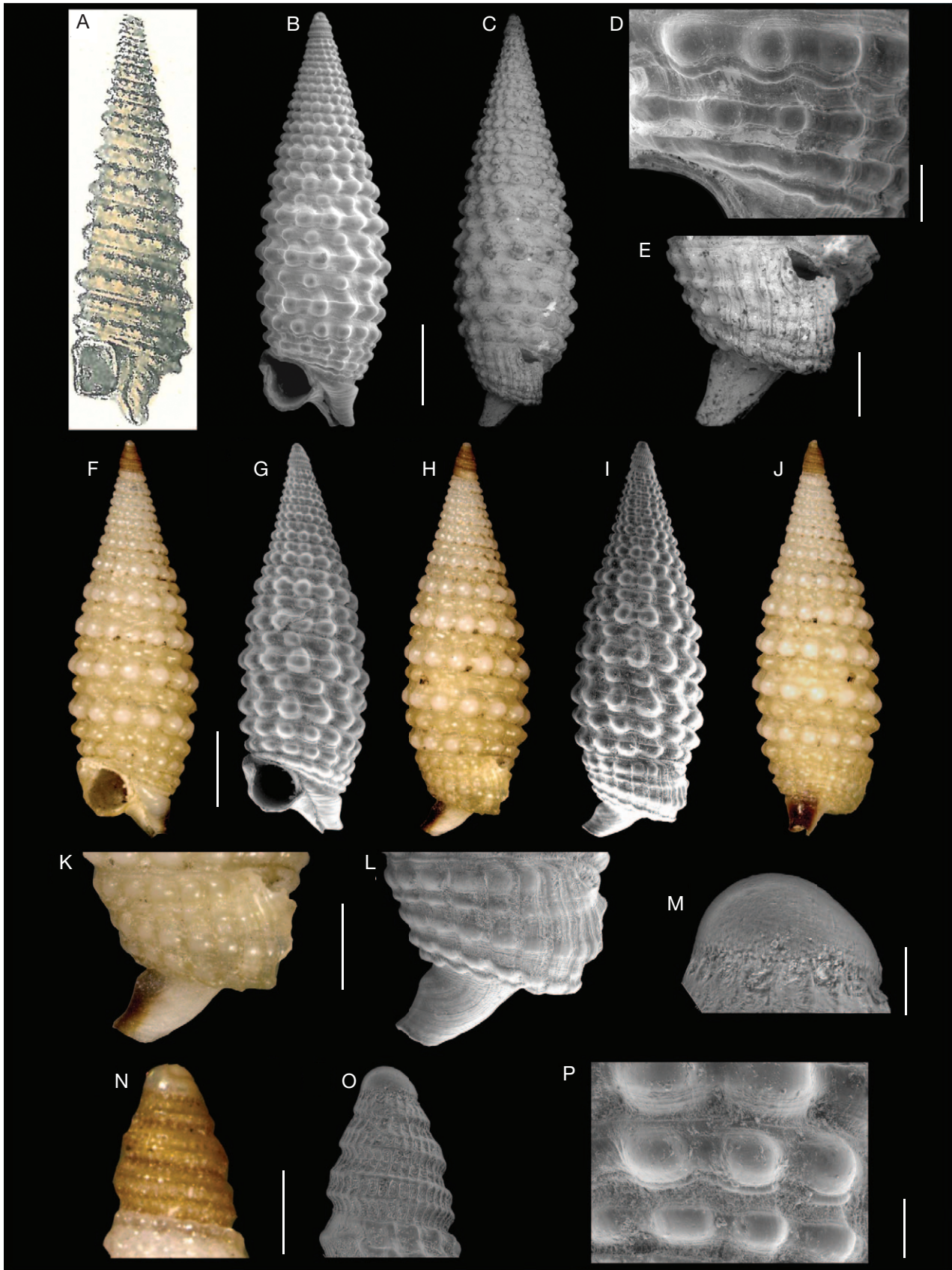


FIG. 10. — *Triplophorus reevei* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B-E**, Neotype, MNHN-IM-2000-9493; front (**B**), side (**C**), teleoconch microsculpture (**D**), peristome (**E**); **F-P**, MNHN-IM-2012-36190: front (**F**, **G**), side (**H**, **I**), back (**J**), peristome (**K**, **L**), first protoconch whorl (**M**), protoconch (**N**, **O**), teleoconch microsculpture (**P**). Scale bars: B, C, F-J, 1 mm; D, N-P, 0.2 mm; E, K, L, 0.4 mm; M, 0.05 mm.

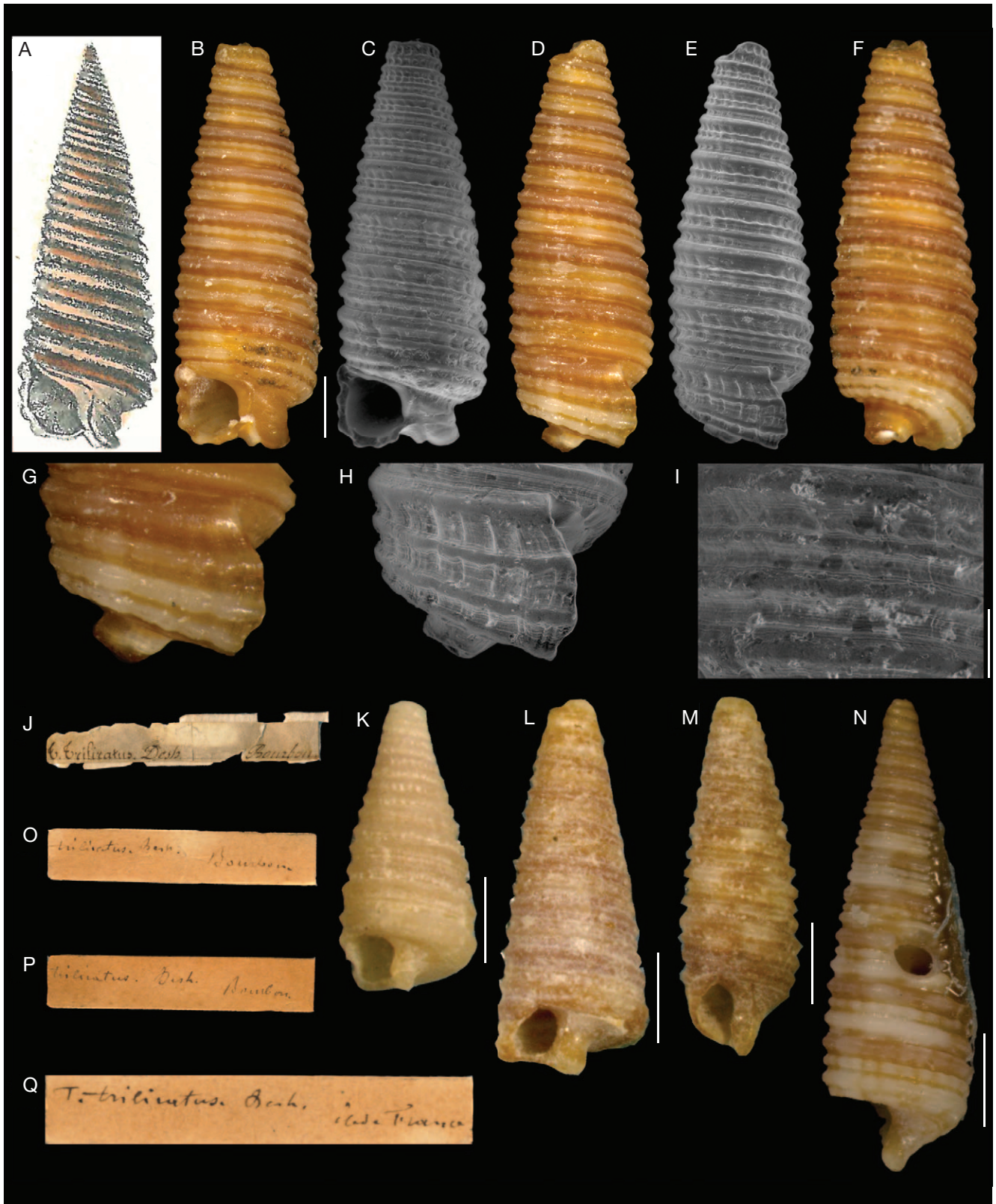


FIG. 11. — *Triphoris triliratus* Deshayes, 1863, La Réunion: **A**, original figure in Deshayes (1863); **B–I**, syntype, MNHN-IM-2000-1576; front (**B, C**), side (**D, E**), back (**F**), peristome (**G, H**), teleoconch microsculpture (**I**); **J**, original label lots MNHN-IM-2000-1576 to 1578; **K, L**, *Viriola* sp., MNHN-IM-2000-1577, La Réunion; **M**, *Viriolopsis* (?) sp. MNHN-IM-2000-1577, La Réunion; **N**, *Viriola integranosa* Hervier, 1898, MNHN-IM-2000-1578, La Réunion; **O**, original label MNHN-IM-2000-1576; **P**, original label MNHN-IM-2000-1577; **Q**, original label MNHN-IM-2000-1578. Scale bars: B–F, M, 0.5 mm; G–I, K, 0.4 mm; L, N, 1 mm.

Triforis (Mastonia) amoena Hervier, 1898
(Fig. 12)

Triforis (Mastonia) amoena Hervier, 1898: 264-265, illustrated by Hervier (1899: pl. 17, fig. 11).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype**. New Caledonia • MNHN-IM-2000-1104; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, minuta, ovata, obesa, apice acuminata, vix solidula, nitida, alba, flavo parè maculata, ad suturas interruptè fulvo tincta. Anfractus 11-12; embryonales 4 carinati, striatuli, luteo-cornei; intermedii convexi, sutura undulata, subcanaliculata discreti, longitudinaliter costulati (costulis laevigatis, rotundis, utrinque ad suturas gemmatis), transversim bilirati, liris subplanatis, prima minore. Gemmae nitidae, subrotundae, subdistantes, inaequales, in secunda serie majores; interstitia laevigata, costulis clathrata, liras inferiores aequantia. Ultimus anfractus convexus, lentè ad basin vix attenuatus, liris 5 graniferis ornatus (prima majore, caeteris minoribus, decrescentibus). Canalis brevis-sinus, unicarinatus, semiclausus, obliquè recurvus. Apertura rectè subpiriformis, lateraliter compressa et supra fissurata. Peristoma continuum; columella angulata, oblique sub anfractu penultimo latè planata, lateraliter brevissima. Labrum ad ortum canalıs columellae junctum, infrà rotundè prodiens, latere planatum, ad suturam sinu parvulo munitum. — Long. 2.50-3 mill.; diam. max. 1.25-1.50 mill.

Hab. Insula lifou. Vidi 8 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, ovate, broad, acute apex, barely solid, bright, white, moderately maculated with brown spots and coloured in brown where the suture ends. Eleven to twelve whorls; four embryonic whorls, keeled, striated, yellow-brownish; intermediated whorls are convex, separated by an undulated and moderately channelled suture, longitudinally costulate (ribs are smooth, rounded, with tubercles on both sides of the suture), with two flattened spiral cords, the first of which is smaller. Tubercles are bright, slightly rounded, slightly spaced, unequal, the second series is bigger. Interspaces are smooth, sculptured with ribs, the inferior cords are similar. Last whorl is convex, slowly and barely attenuated at the base, adorned by five spiral cords with granules (the first cord is the biggest one, others are smaller). Very short siphon, with a single keel, half-closed, curved obliquely. Distinctly pyriform aperture, laterally compressed and fissured above. Continuous peristome; angled columella, oblique under the penultimate whorl and largely flattened, laterally very short. The lip is joined to the beginning of the siphon, roundly protruding below, laterally flattened, with a small sinus at the suture. — Length 2.50-3 mm; maximum diameter 1.25-1.50 mm.

Locality: Lifou Island. I saw 8 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtconoid, rather broad with flat whorls. Syntype 2.5 mm high. Teleoconch of 6 whorls. Three spiral cords present, second cord appearing only on the last whorl. Spiral cords with tubercles at the intersections with rather orthocline axial ribs. Peristome without additional cords, but with vertically elongated tubercles. Posterior sinus relatively shallow. Base with two additional cords with flat tubercles. Protoconch multispiral; in the syntype only the last whorl present bearing axial riblets and apparently two spiral keels. First teleoconch whorl white, the other whorls with yellow to brown blotches on a white background. Brown blotches with always a darker brown line at the suture. Protoconch light brown.

Triforis (Inella) aurea Hervier, 1898
(Fig. 13)

Triforis (Inella) aurea Hervier, 1898: 256, illustrated by Hervier (1899: pl. 16, fig. 5).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntypes**. New Caledonia • MNHN-IM-2000-730; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, elongato-cylindrica, apice acuminata, solida, aurantiaca, albo zonata, propè apicem brunneo cingulata. Anfractus 20-22; e. mbryonales 6, bicarinati, longitudinaliter striati, pallidè corneo-lutei, intermedii biseriati gemmati, gemmis aequalibus, rotundis, lirula intermedia, undulata interposita, sutura indistincta, in intervallo minore sita discreti. Embryonalium sequentes, anfr. 2 omninò vitreo-albi, nitentes; subsequentes 3 aureo-lutei, secunda gemmarum serie rufo tincta; inferiores aurantiaci, serie inferiore granulorum alba. Ultimus anfractus subplanus, infrà versùs basin rotundè directus, circa canalem deplanatus, liris 3 granulosi supra, lirisque cariniferis 2 circa canalem cingulatus. Canalis basalis brevis, apertus, oblique directus, lira crassa cinctus. Apertura subrotunda, parva. — Long. 7-9 mill.; diam. max. 2-2.50 mill.

Hab. Insula Lifou. Vidi 8 specimina, plus minùs imperfecta, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, elongated and cylindrical, acute apex, solid, orange with a white band, near the apex with brown spiral cords. From 20 to 22 whorls; six embryonic whorls, bearing two keels, longitudinally striated, yellowish-brownish, intermediate whorls with two spiral cords of equally sized and rounded tubercles, the intermediated cord is undulated, whorls are separated by an indistinct suture placed in the smaller interspace between whorls. The two whorls after the embryonic ones are completely vitreous-white, bright; the subsequent three whorls are orange-white, the second series of tubercles is coloured red; the inferior whorls are orange with the inferior series of tubercles white. Flattened last whorl, rounded towards the base, flattened near the siphon, with three granulated spiral cords above and two spiral cords around the siphon. Short siphon, opened, obliquely directed, surrounded by a thick spiral cord. Slightly rounded and small aperture. — Length 7-9 mm; maximum diameter 2-2.50 mm.

Locality: Lifou Island. I saw 8 specimens, plus more imperfect ones, collected by R. P. Goubin.

DIAGNOSIS. — Shell conical with flat sides. Syntypes 4.3 and 6.1 mm high. Teleoconch of at least 9 whorls. Three spiral cords present, the second appearing on the seventh whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing flat tubercles. Spiral microsculpture of weakly granulate fine threads. Base with two additional spiral cords of which the first granulated and the second smooth. Protoconch damaged in the syntypes, but apparently multispiral with one strong spiral keel and axial riblets on the last whorl. First two teleoconch whorls white, followed by whorls with the first spiral cord white to yellowish and the second yellowish to white; whorls three to five with an orange to brown line. Protoconch brown.

Triforis (Iniforis) cornuta Hervier, 1898
(Fig. 14)

Triforis (Iniforis) cornuta Hervier, 1898: 249, illustrated by Hervier (1899: pl. 15, figs 1, 1a).

TYPE LOCALITY. — Lifou, New Caledonia.

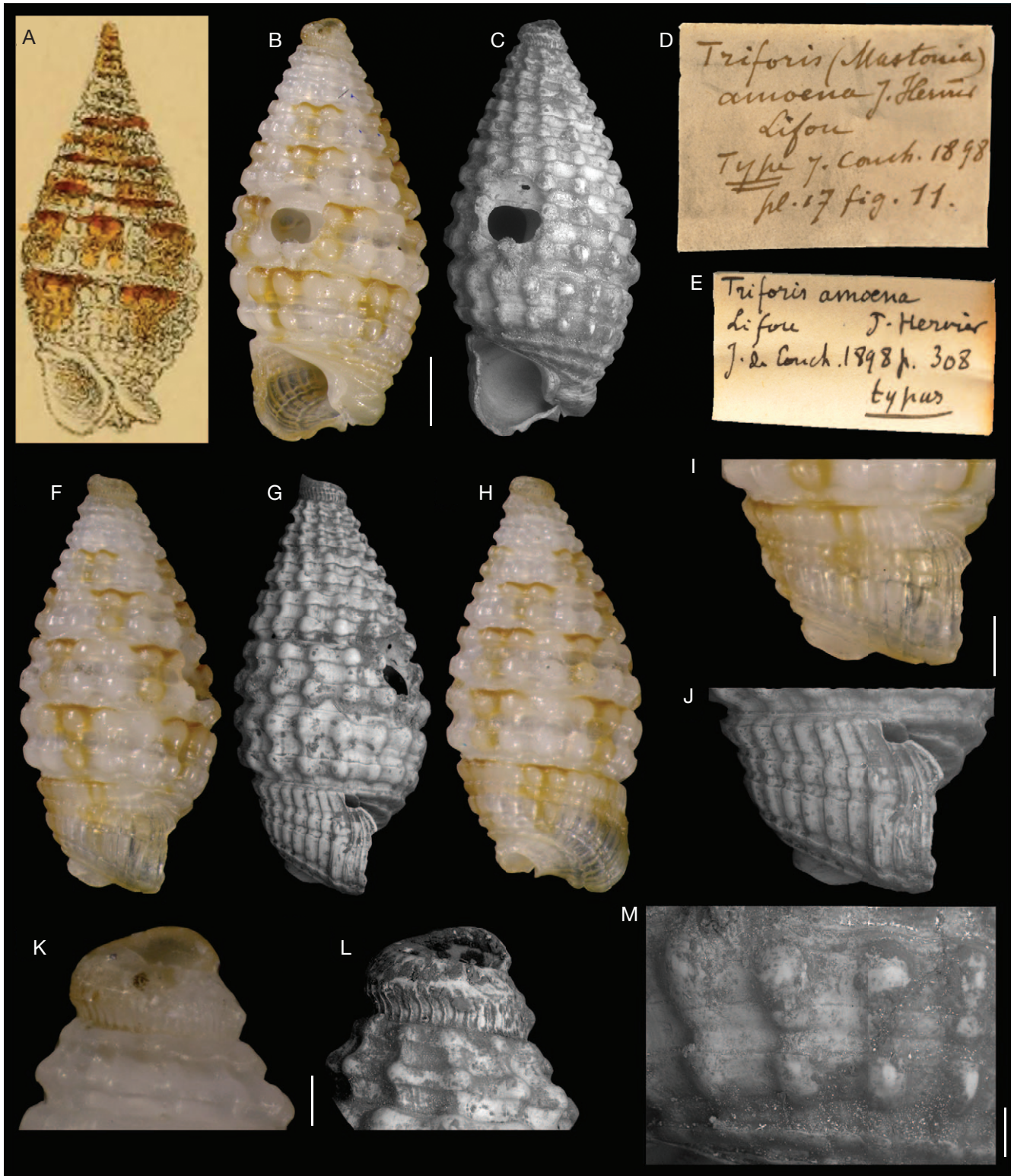


FIG. 12. — *Triforis (Mastonia) amoena* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B, C, F–M**, syntype, MNHN-IM-2000-1104; front (**B, C**), side (**F, G**), back (**H**), peristome (**I, J**), apex (**K, L**), microsculpture (**M**); **D, E**, original labels. Scale bars: **B, C, F–J**, 0.4 mm; **K–M**, 0.1 mm.

TYPE MATERIAL. — **Syntypes**. New Caledonia • MNHN-IM-2000-1500; 2 syntypes, from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, elongata, exiliter conica, apice acuminata, vix solidula, alba, pellucidè nitidissima, luteo plus

minusve interruptè cingulata. Anfractus circa quindecim, angusti, lente accrescentes, sutura subprofunda vix distincti, liris duabus inaequalibus, pellucidè granosis ornati (lira prima majore); inter liras angustè concavi et longitudinaliter striis incrementi minutis impressi. Ultimus anfractus convexus, basi depressus, liris 4–6 ornatus (ultimis 2–4 minoribus,

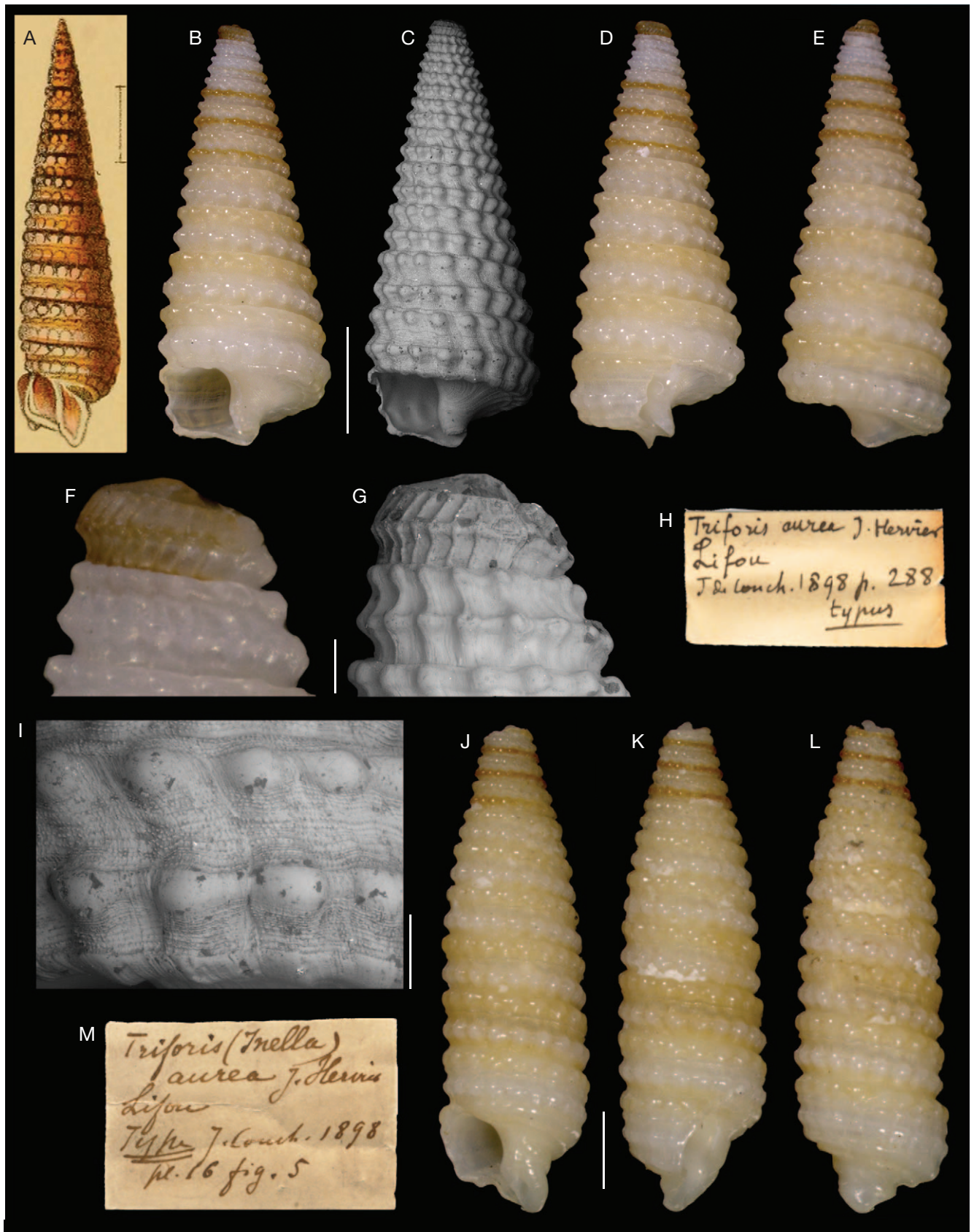


FIG. 13. — *Triforis (Inella) aurea* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-G, I**, syntype 1, MNHN-IM-2000-730: front (**B, C**), side (**D**), back (**E**), apex (**F, G**), microsculpture (**I**); **H, M**, original labels; **J-L**, syntype 2, MNHN-IM-2000-730: front (**J**), side (**K**), back (**L**). Scale bars: **B-E, J-L**, 1 mm; **F, G**, 0.1 mm; **I**, 0.2 mm.

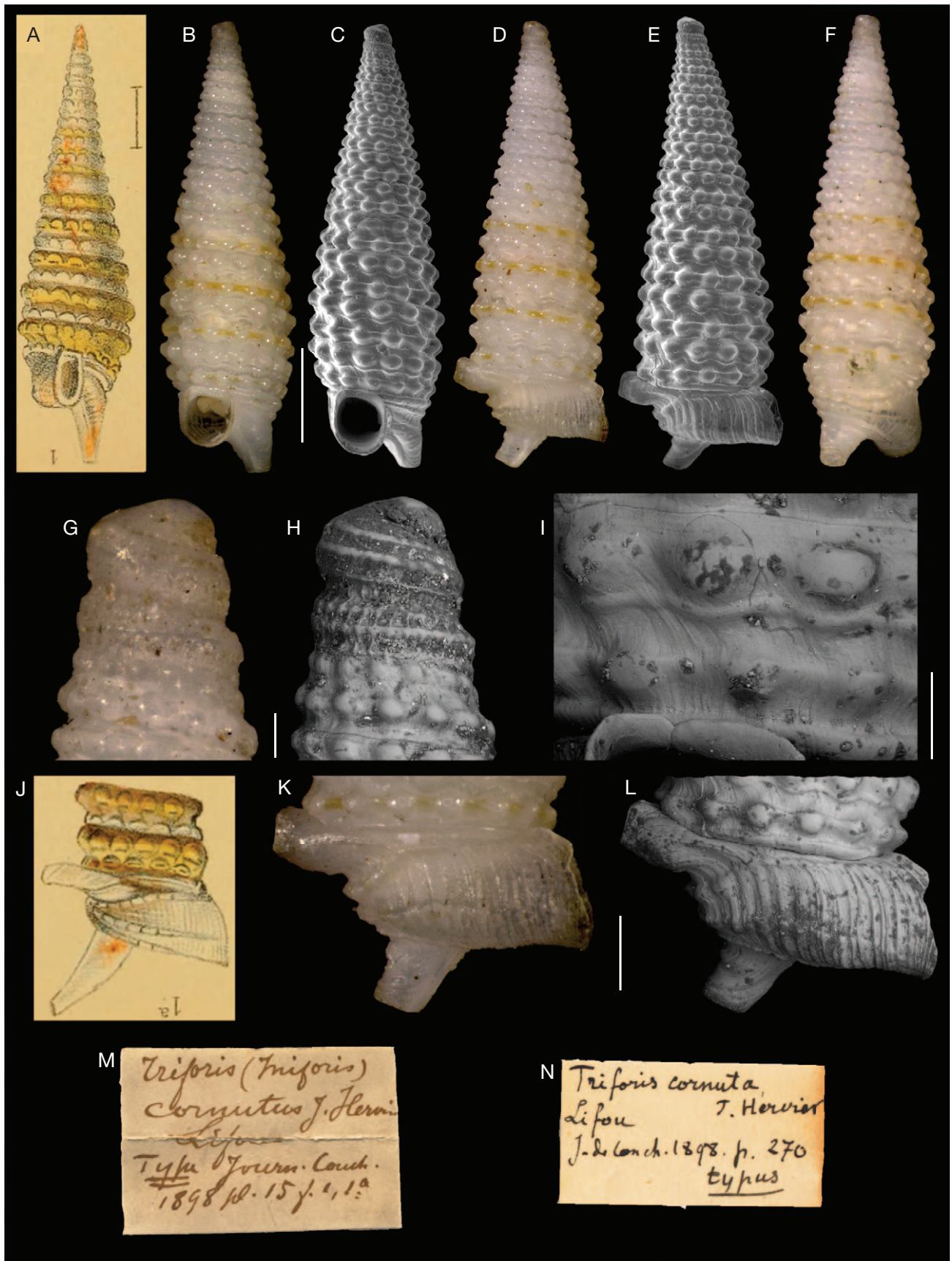


FIG. 14. — *Triforis (Iniforis) cornuta* Hervier, 1898, Lifou, New Caledonia: **A, J**, original figures in Hervier (1898); **B-I, K, L**, syntype, MNHN-IM-2000-1500; front (**B, C**), side (**D, E**), back (**F**), apex (**G, H**), microsculpture (**I**), peristome (**K, L**); **M, N**, original labels. Scale bars: B-F, 1 mm; G, H, 0.1 mm; I, 0.2 mm; K, L, 0.4 mm.

undulatis); in dorsali parte circa $\frac{3}{4}$ decursus partem, prope suturam canali tubifero, retrovadente, longiusculo munitus, indè compressus, tubulatus, tenuis, sub penultimo devius, tricarinatus, striis incrementi plicatus, ad aperturam per diametrum prominulus evadens. Canalis basalís elongatus, oblique subrecurvus, unicarinatus, omninò clausus. Apertura ovata, tubularis, peristomate continuo. Long. 6-7 mill.; diam. max. 2 mill.

Hab. Insula Lifou. Vidi 15 specimina à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, slightly conical, acute apex, barely solid, white, transparent and very bright, yellow in the interspaces between tubercles. About fifteen whorls, narrow, slowly growing, suture slightly deep and strongly distinct, two unequal spiral cords, adorned by transparent granules (the first cord is bigger); interspaces are narrow, concave, longitudinally carved with very small growing lines. Convex last whorl, with a depressed base and adorned by four to six spiral cords (last 2-4 are smaller, undulated); on the dorsal side, at about $\frac{3}{4}$ of the whorl, it is characterised by a slightly long siphon directed backward near the suture, from here the whorl is compressed, tubular, below the penultimate whorl it is incoherent, with three spiral cords and growing lines, becoming slightly and diametrically protruding near the aperture. Elongated siphon, slightly curved obliquely, with one keel, completely closed. Ovate aperture, tubular, the peristome is continuous. Length 6-7 mm; maximum diameter 2 mm.

Locality: Lifou Island. I saw 15 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell conical with flat sides. Illustrated syntype 5.0 mm high. Teleoconch of 11 whorls. Three spiral cords present with the first more prominent, the second appearing on the ninth whorl. First and third cords with tubercles at the intersection with prosocline axial ribs. Second cord initially as a fine thread, but later developing flat tubercles. Peristome without additional cords. Posterior sinus well developed and protruding into a long canal. Base with three additional cords of which the first granulated and the second and third smooth. Paucispiral protoconch of *c.* 2.5 whorls with two strong keels and axial riblets. Teleoconch whorls white with yellow interspaces between the tubercles on the third cord on the last four whorls. Protoconch white.

Triforis (Iniforis) formosula Hervier, 1898 (Fig. 15)

Triforis (Iniforis) formosula Hervier, 1898: 251, illustrated by Hervier (1899: pl. 15, figs 5-5a).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1245; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, parvula, elongato-turgidula, apice acuminata, nitide alba, pallide fulvens in anfractibus inferioribus, inter granula interruptè fulvo picta. Anfractus circa 15 (apice fracto) subconvexi, sutura profunda, lineari, crassiuscula, discreti, liris duabus gemmiferis ornatis; liris aequalibus, intervallo concavo, ferè aequidistantibus; gemmis sphaericis, eminentibus. Ultimus anfractus convexus, quinquelinatus, liris 3 prioribus granuliferis, interdictis. Canalis basalís brevis, obliquus, valdè recurvus, omninò clausus. Apertura subcircularis; peristoma continuum; columella arcuata; labrum tenue, semicirculare, ad basin cum columella angulosè junctum, notabiliter prodiens, juxta suturam, propè aperturam, secundum orificium semitotundum, subtubulare (marginibus erectis) parens. Long. 4 mill.; diam. max. 1.50 mill.

Hab. Insula Lifou. Vidi 2 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, small, broad-elongated, acute apex, bright white, the inferior whorls are light

brownish, discontinuously coloured in brown between the granules. About 15 slightly convex whorls (broken apex), separated by a deep linear and quite large suture and adorned by two tubercled spiral cords; cords are equal, with convex interspaces, equally distant; tubercles are spherical and protruding. Convex last whorl, with five spiral cords, the first three cords bear granules, coloured in-between. Short siphon, oblique, strongly curved, completely closed. Slightly rounded aperture, continuous peristome; arched columella; tenuous lip, semi-circular, making an angle at the base with the columella, markedly protruding, the posterior siphonal canal appears below the suture and near the aperture. Length 4 mm; maximum diameter 1.50 mm.

Locality: Lifou Island. I saw 2 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell conical with flat sides. Syntype 3.7 mm high. Teleoconch of *c.* 8 whorls. Three spiral cords present, the second appearing on the last whorl. First and third cords with tubercles at the intersections with prosocline axial ribs. Second cord as a fine thread. Spiral microsculpture of barely visible smooth fine threads. Peristome with two obsolete additional cords. Siphonal sinus deep. Base with three additional cords of which the first tubercled and the others smooth. Paucispiral protoconch of *c.* 2 whorls with one row of strong tubercles. First three teleoconch whorls white, then yellowish to brownish with brown interspaces between the tubercles. Protoconch white.

Triforis (Mastonia) fulvens Hervier, 1898 (Fig. 16)

Triforis (Mastonia) fulvens Hervier, 1898: 258, illustrated by Hervier (1899: pl. 17, fig. 1).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntypes.** New Caledonia • MNHN-IM-2000-1501; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, subcylindricè tumidula, latere convexa, apice acuminata, solidula, alba, fulvo zonata, brunneo marmorata. Anfractus circa 15, sutura subprofunda, lineari, undulatim prominente discreti, costulis obliquis, laevigatis, rotundis, gemmiferis longitudinaliter ornati, liris 2 gemmas superantibus (liraque tertia minore intermedia in ultimis tribus anfractibus), lira inferiore alba majore cingulati. Ultimus anfractus convexus, basi curtus, ad ortum canalis coarctatus, liris 5 gemmiferis decrescentibus cinctus. Canalis basalís brevis, obliquus, valdè recurvus, clausus, carinatus. Apertura tubularis, subpiriformis, obliqua, latere labri depressa. Peristoma continuum. Labrum tenue, subrotundè prominens, canali junctum, supernè breviter rotundè fissuratum ad suturam. — Long. 5 mill.; diam. max. 2 mill. *Hab. Insula Lifou. Vidi 5 specimina, à R. P. Goubin, S. M., collecta.*

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, slightly broad and cylindrical, laterally convex, acute apex, rather solid, white, with brown bands, brown marbled. About 15 whorls, separated by a slightly deep, linear, waved and protruding suture, ribs are oblique, smooth, rounded, longitudinally adorned by tubercles, with one superior tubercled spiral cord (in the last whorl, the third cord is smaller) and an inferior white and bigger spiral cord. Convex last whorl, short at the base, narrow on the siphon, with 5 decreasing tubercled spiral cords. Short siphon, oblique, strongly curved, closed and carinated. Tubular aperture, slightly pyriform, oblique, depressed on one side of the lip. Continuous peristome. Thin lip, slightly rounded and protruding, connected to the siphon, above and near the suture presents a short rounded fissure. — Length 5 mm; maximum diameter 2 mm.

Locality: Lifou Island. I saw 5 specimens collected by R. P. Goubin.

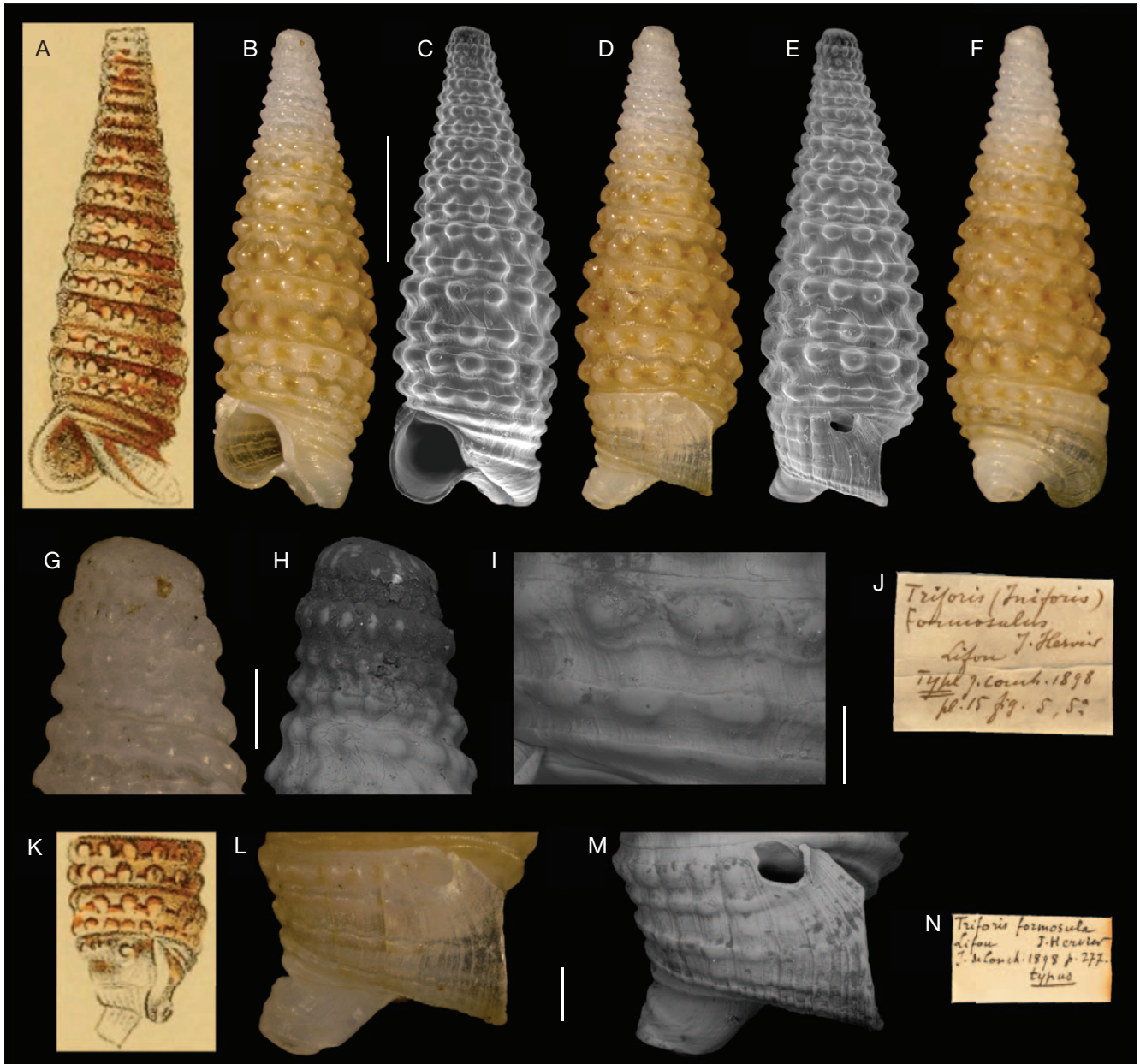


FIG. 15. — *Triforis (Iniforis) formosula* Hervier, 1898, Lifou, New Caledonia: **A, K**, original figures in Hervier (1898); **B-I, L, M**, syntype, MNHN-IM-2000-1245; front (**B, C**), side (**D, E**), back (**F**), protoconch (**G, H**), microsculpture (**I**), peristome (**L, M**); **J, N**, original labels. Scale bars: B-F, 0.5 mm; G-I, L, M, 0.2 mm.

DIAGNOSIS. — Shell cyrtconoid. Illustrated syntype 5.1 mm high. Teleoconch of *c.* 10 whorls. Three spiral cords present, the second on the second last whorl. First and third cords with tubercles at the intersections with rather prosocline axial ribs. Second cord as a fine thread. Base with two additional spiral cords, the first tubercled and the second smooth. First three teleoconch whorls white, then with brownish and whitish first and third cord, respectively, with whitish tubercles. Protoconch absent in the syntype.

Triforis (Viriola) intergranosa Hervier, 1898
(Fig. 17)

Triforis (Viriola) intergranosa Hervier, 1898: 266, illustrated by Hervier (1899: pl. 17, fig. 12).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1314; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, elongato-subulata, acuminata, solida, alba, maculis rufocastaneis marmorata. Anfractus 18-20; embryonales 5 subrotundi, carinati, striati; intermedii concavi, sutura indistincta, subcrenulata discreti, carinis 2 laevibus, acutè prominentibus instructi. Carinarum interstitia clathrata et lira intermedia minore, gemmifera, ornata, striolis minutissimis intercurrentibus. Ultimus anfractus internè subcomplanatus, sexlinatus, liris prima et tertia cariniferis, acutis, caeteris gemmiferis. Canalis brevis, semiclausus, obliquè recurvus, lutescens. Apertura subrotunda, infra suturam internè canalifera, in ore suturalis canalis fissurata. Columella arcuata, fulvescens. Labrum columellae, ad ortum cana-

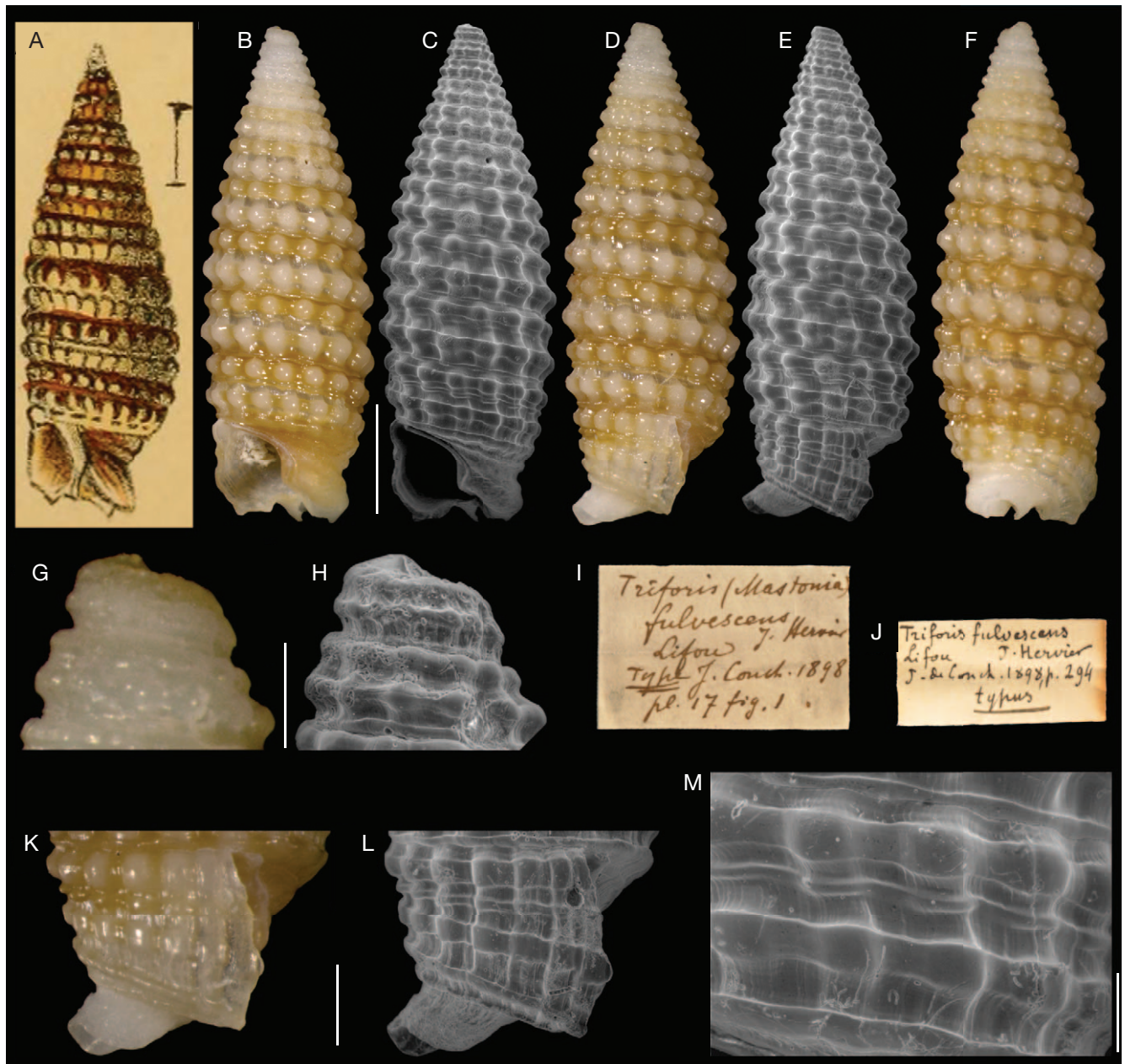


FIG. 16. — *Triforis (Mastonia) fulvescens* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-H, K-M**, syntype, MNHN-IM-2000-1501; front (**B, C**), side (**D, E**), back (**F**), apex (**G, H**), peristome (**K, L**), microsculpture (**M**); **I, J**, original labels. Scale bars: B-F, 1 mm; G, H, M, 0.2 mm; K, L, 0.4 mm.

lis basalis, junctum, rotundè prominens. — Long. 8-9 mill.; diam. max. 2.25-2.50 mill.

Hab. Insula Lifou, Vidi 5 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, subulate-elongated, acute, solid, white, marbled with red-brownish spots. Whorls are about 18-20; the embryonic whorls are five, slightly rounded, carinated and striated; intermediate whorls are concave, separated by an indistinct and moderately crenulated suture, with two protruding, acute and smooth keels. Interspaces between the keels are cancellated, sculptured with really small striae and the intermediate spiral cord is smaller, adorned by tubercles. The last whorl is flattened below, with six spiral cords, first and third cord acute and carinated, other cords are tubercled. Siphon is short, partially closed, obliquely curved, yellowish. Slightly rounded

aperture, internally bearing a channel under the suture, fissured over the edge of the suture. Arched columella, brownish. The columellar lip is roundly protruding and joined to the beginning of the siphon. — Length 8-9 mm; maximum diameter 2.25-2.50 mm.

Locality: Lifou Island. I saw 5 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtconoid. Syntype 5.9 mm high. Teleoconch of c. 9.5 whorls. Three spiral cords present, the second appearing on the third whorl. First and third cords smooth. Second cord ornamented by small tubercles. Spiral microsculpture of fine threads. Base with two additional cords of which the first tubercled and the second a fine cord. Teleoconch with brown blotches on a white background. Tubercles of the second cord white. Protoconch absent in the syntype.



FIG. 17. — *Triforis (Viriola) intergranosa* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-H**, syntype, MNHN-IM-2000-1314; front (**B**, **C**), side (**D**, **E**), back (**F**), peristome (**G**), microsculpture (**H**); **I**, **J**, original label. Scale bars: B-F, 1 mm; G, H, 0.5 mm.

Triforis (Iniforis) jousseaumei Hervier, 1898
(Fig. 18)

Triforis (Iniforis) jousseaumei Hervier, 1898: 250, illustrated by Hervier (1899: pl. 15, figs 4-4a).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype**. New Caledonia • MNHN-IM-2000-1400; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, elongato-conica, apice acuta, nitidissima, alba, fusco inaequaliter tincta, circa basin praesertim et suturas, ad apicem verò pallide violacea. Anfractus circa 15, angusti, lentè accrescentes, liris duabus aequalibus, pellucidè granulosis, gemmis inter se junctis, ornati, sutura vix profunda (plerumque fusco tincta

in inferioribus anfractibus) discreti. Penultimus subconvexus, liris 2-3 granulosis cingulatus. Ultimus convexus, liris 5 minoribus, gemmiferis, cinctus, basi depressus, in dorsali parte (circa $\frac{2}{3}$ decursus partent), propè suturam canali tubifero, recurvo munitus, inde tubulatus, tenuis, liris 3 graniferis striisque elevatis, latè clathratus, ad aperturam evadens. Canalis basalis mediocris, obliquus, recurvus, omninò clausus. Apertura parva, obliquè ovata, tubularis, peristomate continuo. Long. 7 mill.; diam. mar. 2.50 mill.

Hab. Insula Lifou. Vidi 8 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, elongated and conical, acute apex, bright, white, irregularly coloured in brown, above all near the base and the suture, while towards the apex it is coloured in light violet. Whorls are about 15, narrow, slowly growing, with two equal spiral cords bearing transparent granules and adorned by paired tubercles, separated by a barely deep suture (mostly coloured in brown in the inferior whorls). Penultimate



FIG. 18. — *Triforis (Iniforis) jousseaumei* Hervier, 1898, Lifou, New Caledonia: **A, G**, original figure in Hervier (1898); **B-F, H, I**, syntype, MNHN-IM-2000-1400; front (**B, C**), side (**D, E**), back (**F**), apex (**H**), microsculpture (**I**); **J, K**, original labels. Scale bars: B-F, 1 mm; H, 0.1 mm; I, 0.2 mm.

whorl is slightly convex, with two or three granulated spiral cords. Convex last whorl, with five minor tubercled spiral cords, depressed at the base, dorsally (for about $\frac{2}{3}$ of the whorl) with a curved tubular channel near the suture, from here it appears tubular, extensively cancellated by three slender granulated spiral cords which extend over the aperture and are crossed by elevated spiral cords. Medium-sized siphon, oblique, cured, completely closed. Small aperture, obliquely ovate, tubular, peristome continuous. Length 7 mm; maximum diameter 2.50 mm.
Locality: Lifou Island. I saw 8 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell conical with flat sides. Syntype 5.0 mm high. Teleoconch of *c.* 11 whorls. Two spiral cords present. Both cords with tubercles at the intersection with prosocline axial ribs. At the

suture, a fine smooth thread present. Posterior sinus well developed and protruding as a short canal. Base with two additional spiral cords of which the first tubercled and the second smooth. First six teleoconch whorls white, lower teleoconch whorls white with a brown line between the spiral cords. Base brown.

Triforis (Mastonia) lamberti Hervier, 1898
(Fig. 19)

Triforis (Mastonia) lamberti Hervier, 1898: 262, illustrated by Hervier (1899: pl. 17, fig. 7).

TYPE LOCALITY. — Lifou, New Caledonia.

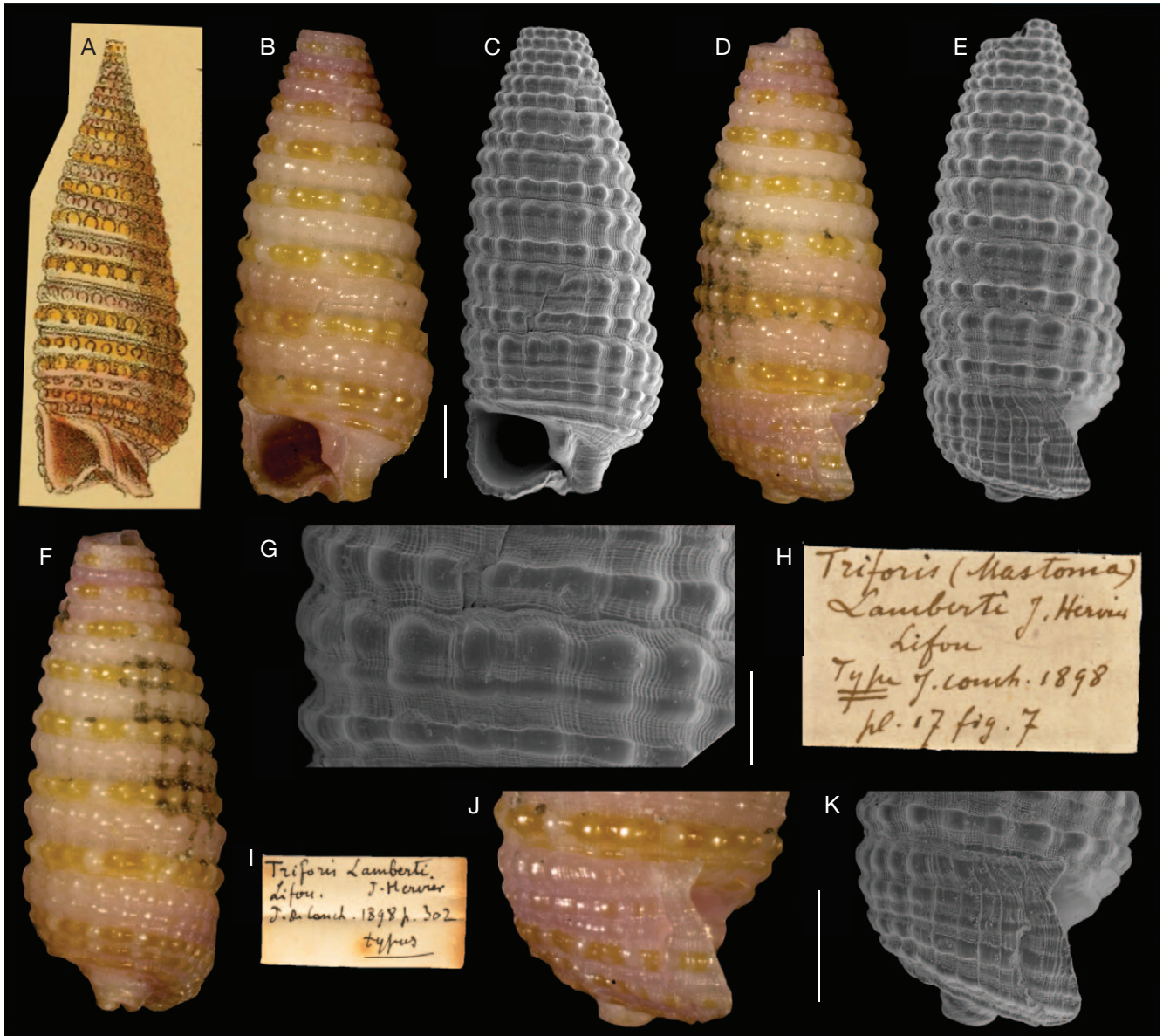


FIG. 19. — *Triforis (Mastonia) lamberti* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-G, J, K**, syntype, MNHN-IM-2000-1431; front (**B, C**), side (**D, E**), back (**F**), microsculpture (**G**), peristome (**J, K**); **H, I**, original labels. Scale bars: B-F, J, K, 1 mm; G, 0.2 mm.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1431; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, ovato-elongata, turgidula, apice acuminata; solida, nitide rosea, subviolacea, in linea inferiore luteo et albo articulata. Anfractus circa 15, concavi, sutura lineari undulatim discreti, bilirati, in inferioribus 3 anfr. lirula intermedia ornati. Lirae aequales, gemmiferae, propè suturas decurrentes; gemmae rotundae, subdistantes, nitidae; interstitia concava, eximie et tenuiter decussata. Ultimus anfractus convexus, ad ortum canalis depressus et subplanatus, 5 seriebus gemmiferis cingulatus, prima majore, inferioribus 3 luteo articulatis. Canalis brevis, oblique recurvus, unicarinatus, semiclausus, luteo tinctus. Apertura oblique piriformis, lateraliter fissurata. Columella angulata, supernè planulata, infernè crassiuscula. Labrum oblique directum, subrotundum, angulosè infra ad canalem et supra ad columellum adhaerens. — Long. 5-8 mill.; diam. max. 2.25-3 mill. Hab. Insula Lifou. Vidi 5 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, ovate and elongated, broad, acute apex; solid, light pink, slightly violet, yellow and white on the inferior spiral cord. Whorls about 15, concave, separated by a linear and waved suture, with two spiral cords, three inferior whorls adorned by an intermediate spiral cord. Spiral cords are equal, tubercled, extending near the suture; tubercles are rounded, slightly spaced, bright; interspaces are concave, finely and slightly decussated. Last whorl convex, depressed and slightly flattened near the siphon, adorned by five series of tubercles, the first series is larger, the inferior three are distinctly yellow. The siphon is short, obliquely curved, with one keel, partly closed, coloured in yellow. Aperture is obliquely pyriform, laterally fissured. Columella is angled, flattened above, slightly swollen below. Lip obliquely directed, slightly rounded, angled below near the siphon and attached to the columella above. — Length 5-8 mm; maximum diameter 2.25-3 mm.

Locality: Lifou Island. I saw 5 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtococonoid. Syntype 6.6 mm high. Teleoconch of *c.* 8 whorls. Three spiral cords present, the second appearing on the seventh whorl. First and third cords with tubercles at the intersections with orthocline axial ribs. Second cord initially as a smooth fine thread, but later developing tubercles. Microsculpture of very fine spiral and axial threads crossing each other, giving a reticulate pattern. Peristome with additional cords below the second and third cord. Base with two additional cords which begin smooth and develop flat tubercles. Teleoconch pinkish with the third cord and the cords at the base with brown and white spots.

Triforis (Mastonia) leucomys Hervier, 1898
(Fig. 20)

Triforis (Mastonia) leucomys Hervier, 1898: 261, illustrated by Hervier (1899: pl. 17, fig. 5).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1484; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, ovata, ventricosa, apice acuminatim attenuata, solidula, nitida, alba, prope apicem brunneo bilirata, ad basin circa canalem et labrum ustulato-rufo tincta. Anfractus 12-15; embryonales 3 bicarinati, striati, pallide cornei, intermedii sutura indistincta, lineari discreti, costulis et liris ornati. Costulae rotundae, laeves, biserialim tuberculiferae, tuberculis subrotundis, aequalibus. Lirae elevatae 2, costulis minores, gemmas religando superantes; aliquando, praesertim in inferioribus anfr., intermediae 2 lirulae, multo graciliores, in sulcis inter gemmarum series decurrentes. Ultimus anfractus subconvexus, liris 5 graniferis (prima majore, caeteris decrecentibus) cingulatus, ad ortum canalis vix compressus. Canalis basalis brevis, unicarinatus, obliquus, valde recurvus, tubulatus, semiclausus, brunneo tinctus. Apertura subtubulata, prominens, supernè obliquè arcuata et lateraliter ad suturam fissa, post fissuram rotundè sinuata. Columella arcuata, interna. Labrum tubiforme, prope aperturam brunneo tinctum, canali basali et lateri columellari cohaerens, infra rotundum, lateraliter planatum, supernè anfr. penultimum transiens, non adhaerendo, et in latere sinum subrotundum efformans. — Long. 6 mill.; diam. max. 2.25 mill. Hab. Insula Lifou. Vidi 5 specimina, à R. P. Goubin, S. M., collecta.*

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, ovate, broad, acute and slender apex, rather solid, bright, white, with two brown spiral cords near the apex, at the base near the siphon and the lip it is coloured in brownish-red. Whorls are between 12 and 15; three embryonic whorls with two keels, striated, light brownish, intermediate whorls are separated by a linear and indistinct suture and are adorned by ribs and spiral cords. Ribs are rounded, smooth, with two series of tubercles, which are slightly rounded, equal. There are two elevated spiral cords, smaller than the ribs, with tubercles at the crossings. In some cases, especially in the inferior whorls, interspaces between gemmule series are characterised by two very thin intermediate spiral cords. Last whorl slightly convex, adorned by five granulated spiral cords (first cord is bigger, the others smaller), near the siphon is barely shrunk. Siphon is short, unicarinated, oblique, strongly curved, tubular, partly closed, coloured in brown. Slightly tubular aperture, protruding, above obliquely arched and laterally fissured towards the suture, after the fissure it is roundly curved. Arched and internal columella. Tubular lip, coloured in brown near the aperture, adjacent to the siphon and to the columellar side, rounded below, flattened laterally, surpassing the second last whorl, unattached, and laterally forming a slightly rounded sinus. — Length 6 mm; maximum diameter 2.25 mm.

Locality: Lifou Island. I saw 5 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtococonoid with flat sides. Syntype 5.4 mm high. Teleoconch of *c.* 10 whorls. Three spiral cords present, the second appearing on the last whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord with tubercles. A smooth thread present suprasuturally. Peristome with additional cords below the second and third cord. Posterior sinus shallow. Base with three additional cords, the first with tubercles, the other two smooth. First 2.5 teleoconch whorls white, the following yellowish. Third and fourth teleoconch whorls with part of the first and third cord brown creating a strong line between the white whorls above and the yellow whorls below. The peristome margin and the tip of the siphonal canal brown.

Triforis (Iniforis) mirifica var. *lifuana* Hervier, 1898
(Fig. 21)

Triforis (Iniforis) mirifica var. *lifuana* Hervier, 1898: 249, illustrated by Hervier (1899: pl. 15, figs 2-2a).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Lectotype.** New Caledonia • MNHN-IM-2000-29260; here designated.

Paralectotype. *Triphoris mirificus* Deshayes, 1863: MNHN-IM-2000-1508; 1 paralectotype (abapical fragment), Lifou, New Caledonia (see Remarks).

ORIGINAL DESCRIPTION. — *T. sinistrorsa, elongata, angusta, apice acuminata, alba lutescens, ad basin et ad apicem pallide brunnea. Anfr. circa 15: priores cornei, angusti, liris duabus inaequalibus, aequidistantibus, pellucidè granulosis ornati. Lira prima minor, in ultimis anfractibus fulvo-luteo tincta; secunda major, cingulo luteo inter margaritas interruptè lineata. Ultimus anfractus longiusculus, basi depressus, liris 4 granulosus ornatus; in dorsali parte (circa mediam decursus partem), prope suturam canali tubifero perlongo munitus, indetubulatus, 4 liris granulosus et striis clathratè decoratus, ad aperturam evadens. Canalis basalis elongatus, valde obliquus, recurvus, omninò clausus. Apertura exigua, circularis, tubulata, prominula, peristomate continuo. Long. 6-7 mill.; diam. max. 1.25-1.50 mill. Hab. Insula Lifou. Vidi 10 specimina à R. P. Goubin, S. M., collecta.*

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, elongated, narrow, acute apex, white-yellowish, at the base and at the apex light brown. Whorls about 15: first whorls brownish, narrow, with two unequal and equidistant spiral cords, adorned by transparent granules. The first cord is smaller, coloured in brown-yellow in the last whorl; the second cord is larger, characterised by a discontinuous yellow cord between the granules. Last whorl is quite long, depressed at the base, adorned by four granulated spiral cords; in the dorsal part (at about half of the whorl), it is characterised by a very long tubular siphon near the suture, adorned by a cancellated structure with four granulated spiral cords and striae, extending to the aperture. Siphon is elongated, strongly oblique, curved, completely closed. The aperture is small, rounded, tubular, slightly protruding, peristome continuous. Length 6-7 mm; maximum diameter 1.25-1.50 mm. Locality: Lifou Island. I saw 10 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell very elongated with flat sides. Lectotype 5.9 mm high. Teleoconch of *c.* 13 whorls. Two spiral cords present with the lower being more prominent. Cords with strong tubercles at the intersections with slightly prosocline axial ribs. A very fine thread present below the first cord. Peristome with an additional cord below the first cord. Posterior sinus well developed and protruding into a canal. Base with two additional tubercled cords. Teleoconch white with brown interspaces between the tubercles on the second cord. First cord becoming light brown on the lower whorls. A brown blotch present on the base.

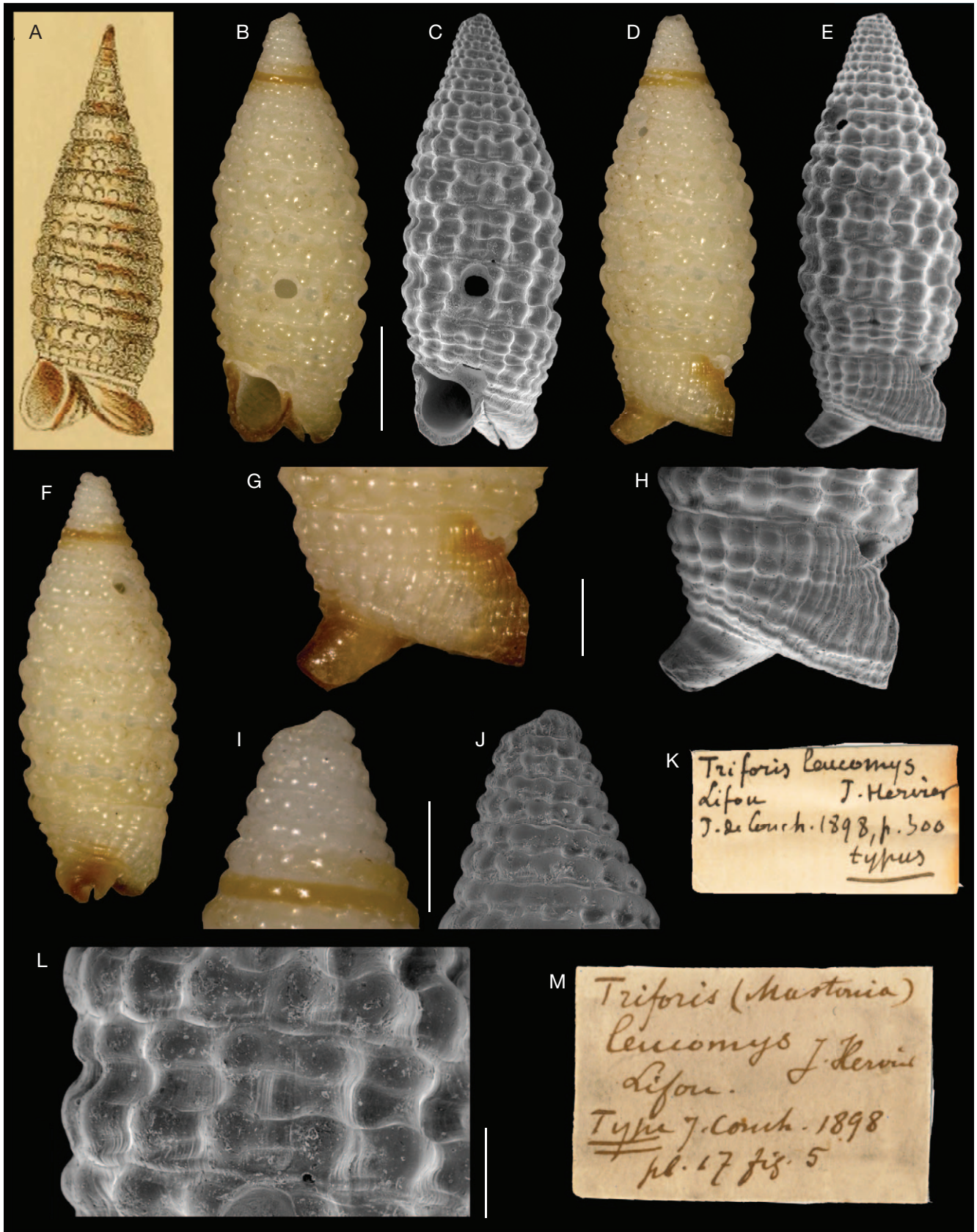


FIG. 20. — *Triforis (Mastonia) leucomys* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B–J, L**, syntype MNHN-IM-2000-1484; front (**B, C**), side (**D, E**), back (**F**), peristome (**G, H**), apex (**I, J**), microsculpture (**L**); **K, M**, original labels. Scale bars: B–F, 2 mm; G–J, 0.5 mm; L, 0.2 mm.

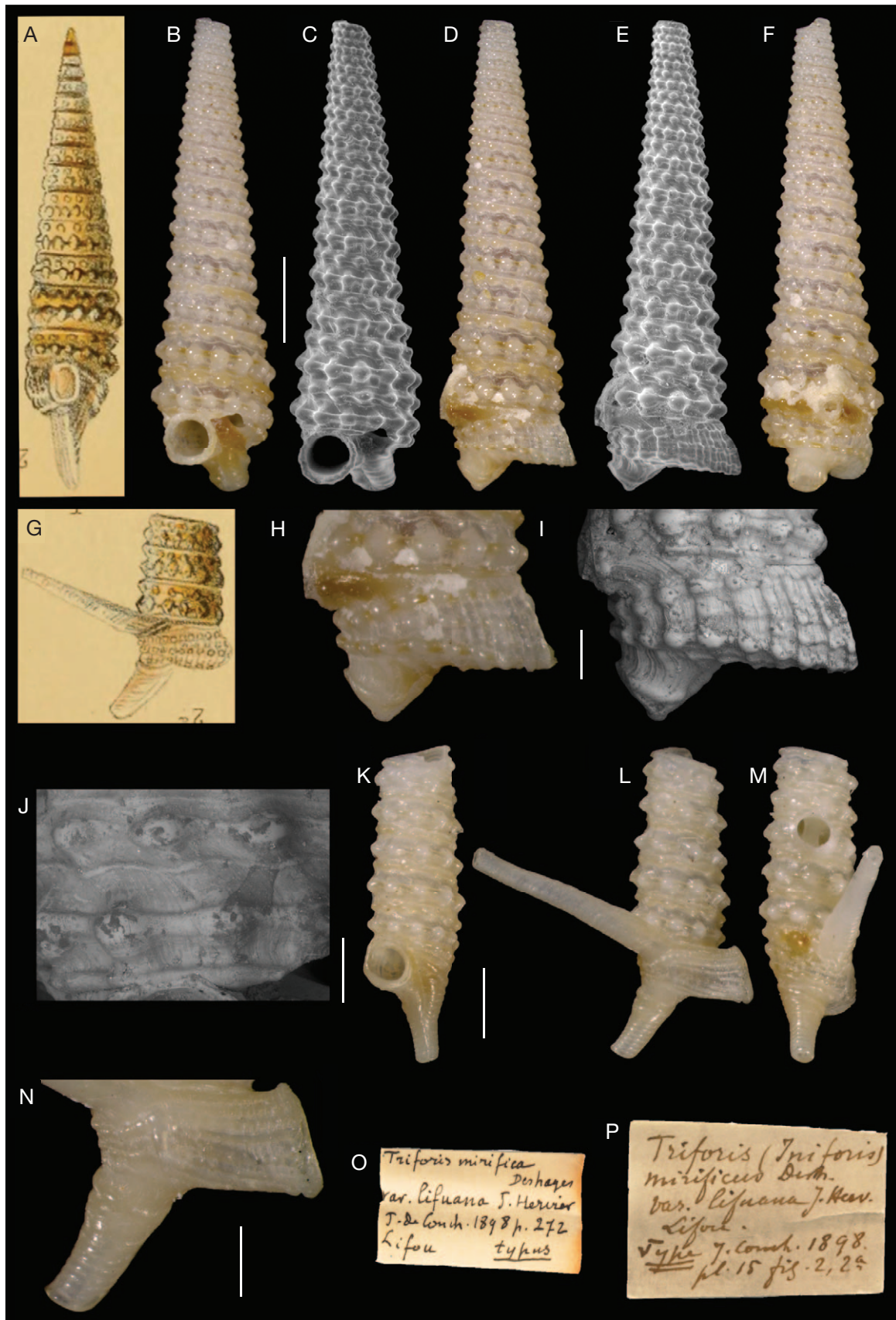


FIG. 21. — *Triforis (Iniforis) mirifica* var. *lifuana* Hervier, 1898, Lifou, New Caledonia: **A, G**, original figures in Hervier (1898); **B-F, H-J**, lectotype, MNHN-IM-2000-29260: front (**B, C**), side (**D, E**), back (**F**), peristome (**H, I**), microsculpture (**J**); **K-N**, *Triphoris mirifica* Deshayes, 1863 (fragment), paralectotype, MNHN-IM-2000-1508: front (**K**), side (**L**), back (**M**), peristome (**N**); **O, P**, original labels. Scale bars: B-F, K-N, 1 mm; H, I, 0.4 mm; J, 0.2 mm.

REMARKS. — The original lot contained a specimen (Fig. 21B-F, H, I) and a fragment (Fig. 21J-N), the latter not matching the description of *lifuana* but possibly of *Contraforis insulana* Lasseron, 1958 or *Triphora (Iniforis) bellula* Kosuge, 1961. *Triforis lifuana* is characterized by the dark interspaces between tubercles on the last spiral cord and by having more numerous and less prominent such tubercles. Therefore, we designate the lectotype to stabilize the nomenclature.

Triforis (Mastonia) loyaltiensis Hervier, 1898
(Fig. 22)

Triforis (Mastonia) loyaltiensis Hervier, 1898: 256, illustrated by Hervier (1899: pl. 16, fig. 6).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntypes**. New Caledonia • MNHN-IM-2000-1502; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, elongato-conica, turgidula, apice acuminata, solidula, nitida, alba, roseo tincta, luteo cingulata. Anfractus 13-15: embryonales 3 violacei, carinati, striis verticalibus decussati, intermedii angusti, lentè accrescentes; subembryonales 5-6 bilirati, liris juxta suturas sitis, gemmiferis, interstitiis verticaliter costulatis, sutura profunda discreti; inferiores trilirati, intermedia lira paululum minore, liris et costulis ferè aequidistantibus decussati, in intersectione granosi. Ultimus anfractus convexus, basi rotundus, sexliratus, liris gemmiferis, ultimis 2 exilibus. Canalis brevissimus, apertus, obliquè recurvus. Apertura parva, obliquè ovata, superne angulata et lateraliter fissa. Columella concava. Labrum arcuatum, prominens, acutum, sub sutura internè canaliculatum, infernè ad canalem basalem columellae quasi junctum. Sinus aperturalis parvulus, rotundus, in canali suturali interno effossus. — Long. 5-6 mill.; diam. max. 1.75-2 mill. Hab. Insula Lifou. Vidi 5 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, elongated and conical, slightly broad, acute apex, rather solid, bright, white, pink coloured, with yellow spiral cords. Whorls from 13 to 15: embryonic whorls are three, purplish, carinated, crossed by vertical striae, intermediate whorls are narrow, slowly growing; semi-embryonic whorls are from five to six, separated by a deep suture, they are characterised by two spiral cords, these are close to the suture and tubercled, interspaces are vertically costulate; inferior whorls with three spiral cords, intermediate spiral cord is slightly smaller, cords and ribs are more or less equally crossed, granulated on the interspaces. Last whorl is convex, rounded at the base, with six tubercled spiral cords, the last two cords are thin. Siphon is very short, open, obliquely curved. Aperture is small, obliquely ovate, angled above and laterally fissured. Columella is concave. Lip is arched, protruding, acute, internally canaliculated below the suture, below almost attached to the basal channel of the columella. Sinus of the aperture is small, rounded, carved inside the suture. — Length 5-6 mm; maximum diameter 1.75-2 mm. Locality: Lifou Island. I saw 5 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell conical with flat sides. Illustrated syntype 5.1 mm high. Teleoconch of 10 whorls. Three spiral cords present, the second appearing on the sixth whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord initially with thin tubercles, becoming larger on the lower whorls. Spiral microsculpture of several fine spiral threads between the main cords. Peristome without additional cords. Posterior sinus shallow. Base with three additional spiral cords of which the first with tubercles, the second with flat tubercles and the third smooth. Protoconch broken in the illustrated syntype, but possibly multispiral with two strong spiral keels and several strong axial riblets. Teleoconch pink

with the first cord orange to brown. Base light brown with orange first cord and siphonal canal. Protoconch whitish to pinkish.

Triforis (Mastonia) lucidula Hervier, 1898
(Fig. 23)

Triforis (Mastonia) lucidula Hervier, 1898: 261, illustrated by Hervier (1899: pl. 17, fig. 6).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype**. New Caledonia • MNHN-IM-2000-1489; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, ovato elongata, obesula, apice acuminata, vix solidula, lucidè nitida, alba, pallidè violacea, in basi sublutescens. Anfractus 15; embryonales 5, unicarinati, striati, pallidè luteo-cornei; intermedii convexo-declives, sutura profunda, canaliculata discreti, longitudinaliter costulati et transversim trilirati. Costulae rotundae, laevigatae, triseriatim subaequaliter et aequidistanter gemmiferae (biseriatim in quatuor subembryonalibus anfr.). Gemmae rotundae, in anfr. ultimis majores; lirae gemmas unientes et superantes. Ultimus anfractus sexiès lirato-gemmatus, gemmis decrescentibus, convexus, ad ortum canalis vix depressus. Canalis basalis brevis, semiclausus, unicarinatus, obliquè recurvus. Apertura obliquè piriformis. Columella arcuata. Labrum infernè canali adhaerens, arcuatum, prominens, quinquecarinatum, lateraliter supernè fissuratum; sinus suturalis, parvulus, elongatulus. — Long. 4-5.50 mill.; diam. max. 1.75-2 mill. Hab. Insula Lifou. Vidi 5 specimina, à R. P. Goubin, S. M., collecta Varietas β. Imperfecta, J. Hervier. Tumidior, biseriatim gemmata, triseriatim in ultimis 3 anfractibus. Hab. Insula Lifou. Vidi 6 specimina.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, ovate-elongated, broad, acute apex, barely solid, very bright, white, light purplish, slightly yellowish at the base. Whorls are 15; embryonic whorls are five, unicarinated, striated, light yellow-brown; intermediate whorls are convex-sloping, longitudinally costulate and transversally with three spiral cords, separated by a deep channeled suture. Ribs are rounded, smooth, with three series of subequal and equidistant tubercles (two series in four subembryonic whorls). Gemmae are rounded, bigger in the last whorl; spiral cords surmounting and jointed to the tubercles. The last whorl is tubercled and with six spiral cords, tubercles are decreasing, the whorl is convex and barely depressed near the siphon. Short siphon, partly closed, unicarinated, obliquely curved. Obliquely pyriform aperture. Arched columella. The lip is inferiorly attached to the siphon, arched, protruding, with five keels, laterally fissured above; sutural sinus is small and elongated. — Length 4-5.50 mm; maximum diameter 1.75-2 mm.

Locality: Lifou Island. I saw 5 specimens collected by R. P. Goubin. Variety β. *imperfecta*, J. Hervier.

Broader, with two tubercled spiral cords, and three cords in the last three whorls.

Locality: Lifou Island. I saw 6 specimens.

DIAGNOSIS. — Shell cyrtocoid. Syntype 5.1 mm high. Teleoconch of 9 whorls. Three spiral cords present, the second appearing on the sixth whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord initially with thin tubercles, larger on the lower whorls. Peristome without additional cords. Posterior sinus shallow. Base with two additional tubercled cords. Protoconch multispiral but broken in the syntype, with one spiral keel and several equally strong axial riblets. Teleoconch white with the last whorl being pale yellowish on the first spiral cord and at the base. The second last whorl with a darker background between the spiral cords. Protoconch brown.

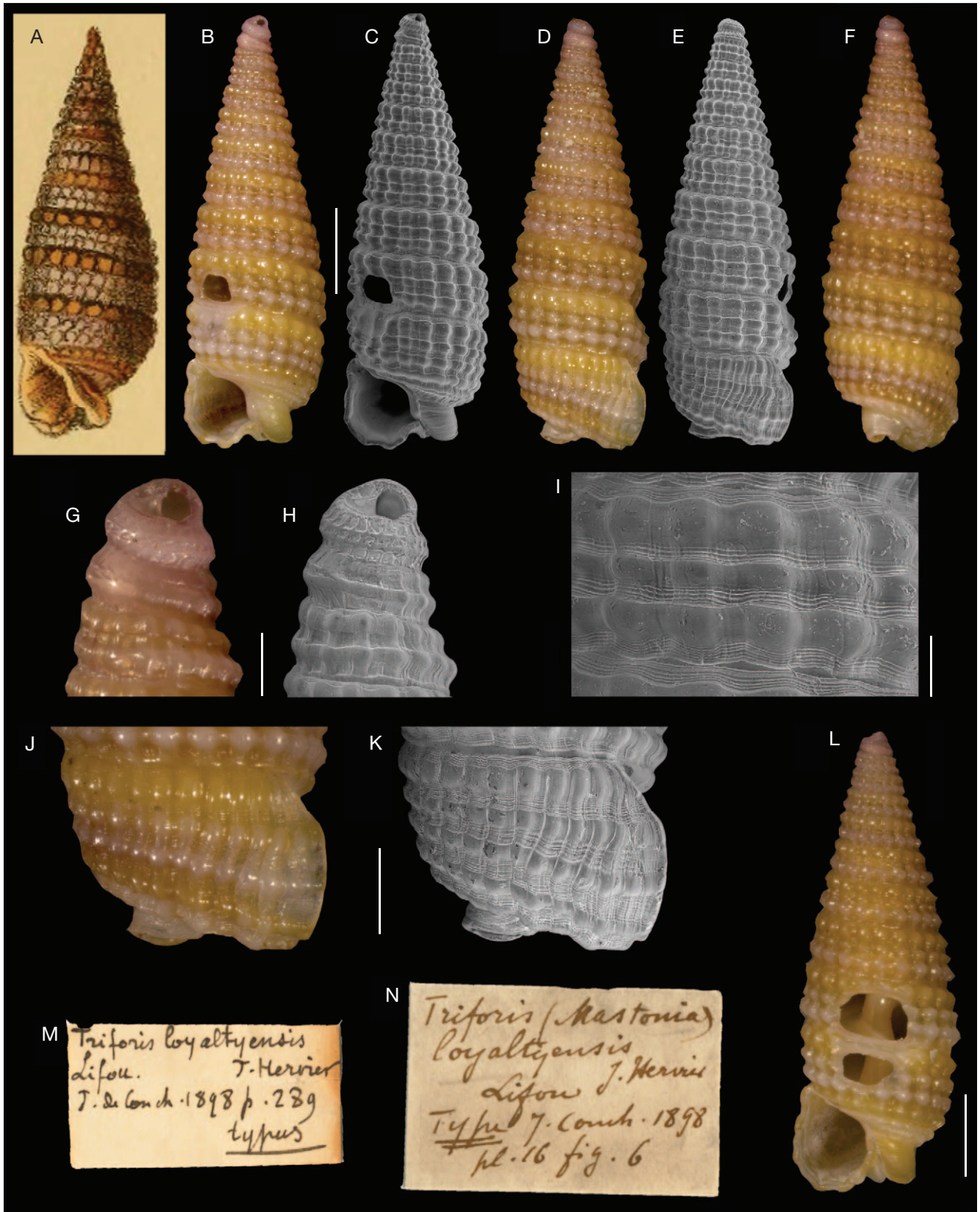


FIG. 22. — *(Mastonia) loyaltiensis* Hervier, 1898, Lifou, New Caledonia: A, original figure in Hervier (1898); B-K, syntype 1, MNHN-IM-2000-1502; front (B, C), side (D, E), back (F), protoconch (G, H), microsculpture (I), peristome (J, K); L, syntype 2, MNHN-IM-2000-1502; front; M, N, original labels. Scale bars: B-F, L, 1 mm; G-I, 0.2 mm; J, K, 0.5 mm.

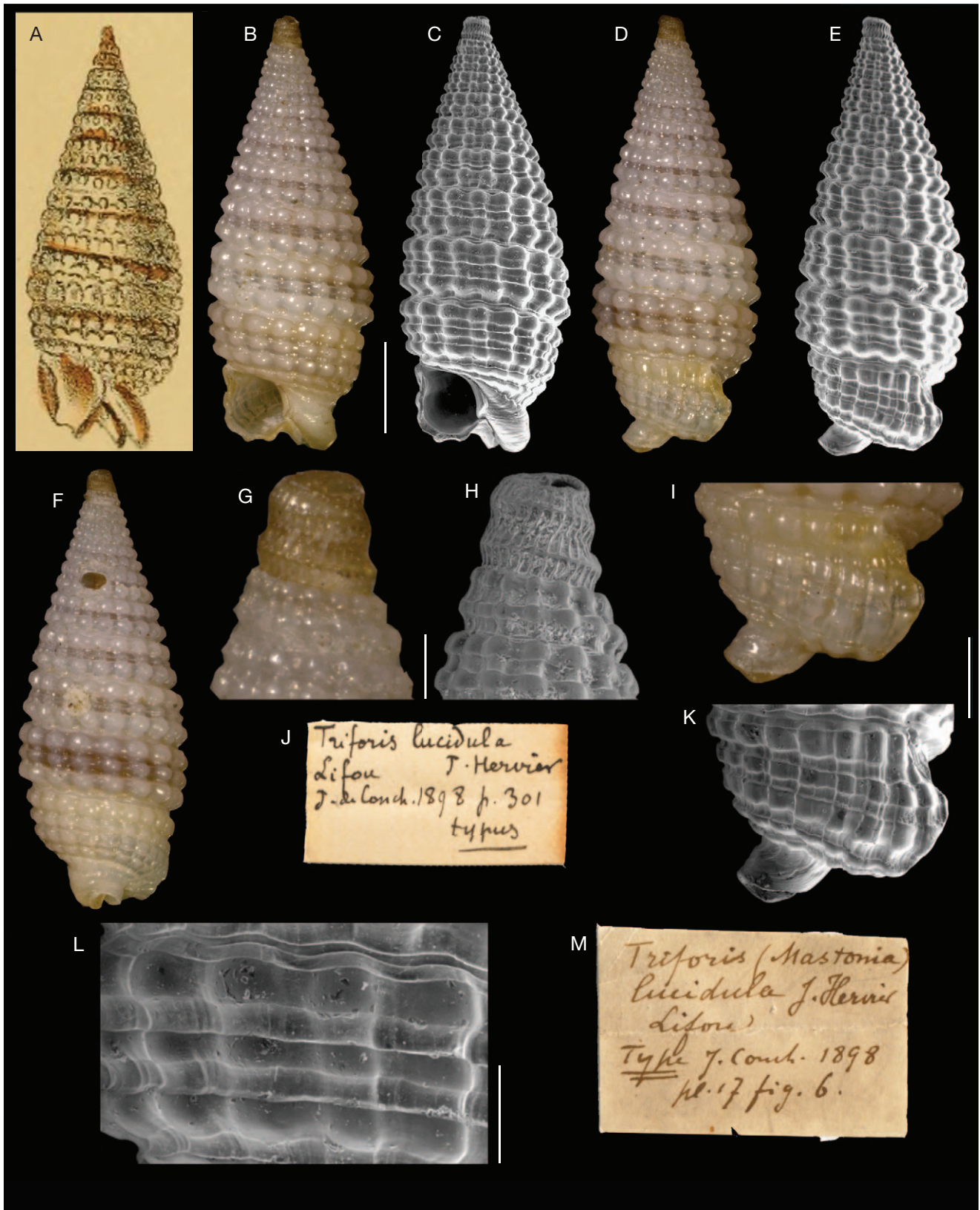


FIG. 23. — *Triforis (Mastonia) lucidula* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-I, K, L**, syntype, MNHN-IM-2000-1489; front (**B**, **C**), side (**D**, **E**), back (**F**), protoconch (**G**, **H**), peristome (**I**, **K**), microsculpture (**L**); **J**, **M**, original labels. Scale bars: B-F, 1 mm; G, H, 0.2 mm; I, K, 0.5 mm; L, 0.4 mm.

***Triforis (Mastonia) mediotincta* Hervier, 1898**
(Fig. 24)

Triforis (Mastonia) mediotincta Hervier, 1898: 259, illustrated by Hervier (1899: pl. 17, fig. 3).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1490; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, parvula, ovato-elongatula, obesula, latere convexa, apice acuminata, solida, alba, versus medium luteo copiosè maculata. Anfractus circa 12 (?), sutura lineari, undulata, vix distincta discreti, longitudinaliter costulati (costulis rotundoplanatis, laevigatis), transversim liris gemmiferis biserialiter decorati, lirula intermedia, minore in ultimis 3 anfractibus, muniti. Lirarum intervalla suturae sulcis latiora. Ultimus anfractus convexo-rectiusculus, 6 liris gemmiferis ornatus. Canalis basalis brevis, valdè recurvus, quasi clausus. Apertura parvula, piriformis. Columella concava, latere erecta; labrum tenue, semi-circulare, supernè fissuratum.* — Long. 3 mill.; diam. max. 1.50 mill.

Hab. Insula Lifou. Vidi 4 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, small, ovate and elongated, broad, laterally convex, acute apex, solid, white, towards the centre abundantly spotted with yellow. Whorls about 12 (?), separated by a linear, wavy and barely distinct suture, longitudinally costulate (ribs are rounded-flattened, smooth), adorned by two series of tubercled spiral cords and with an intermediate spiral cord which is smaller in the last three whorls. The interspace of the spiral cords is wider than the suture. Last whorl quite straight-convex, adorned by six tubercled spiral cords. Short siphon, strongly curved, partly closed. Small aperture, pyriform. Concave columella, laterally straight; thin lip, semi-circular, fissured above. — Length 3 mm; maximum diameter 1.50 mm.

Locality: Lifou Island. I saw 4 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtococonoid. Syntype 2.7 mm high. Teleoconch of 7 whorls. Three spiral cords present, the second appearing on the fifth whorl. First cord more prominent. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but then developing thin tubercles. Spiral microsculpture of barely visible fine threads. Peristome with additional cords below the second and third cord. Posterior sinus shallow. Base with three additional tubercled cords. Protoconch largely missing in the syntype but possibly multispiral. Teleoconch white with large brown blotches on the fifth to the seventh whorls. Protoconch brown.

***Triforis (Inella) melantera* Hervier, 1898**
(Fig. 25)

Triforis (Inella) melantera Hervier, 1898: 254, illustrated by Hervier (1899: pl. 16, figs 3-3a).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1493; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, elongato-subulata, acuminata, solidula, castaneo-subnigra, apice alba. Anfractus circa 18 (apice fracto), planulati, sutura undulata, sub lirula crassiuscula anfractus praecedentis jacente discreti, longitudinaliter costulati, transversim quadrilirati. Lirae priores 3 costulis aequales, aequidistantes, subplanatae, ad intersectionem costularum gemmatae; quarta multò minor, undulata,*

suturam praecedens. Gemmae primae et tertiae lirae livido fusco tinctae, paulo majores in anfractibus superioribus, in inferioribus anfr. 7 gemmis medianis aequales; interstitiis minutissimè liratulis. Anfractus ultimus, subplano-convexus, ad basin declivis, circa canalem coarctatus, 6 liris gemmiferis (inferioribus 2 minoribus) cingulatus. Canalis basalis brevis, apertus, lira crassa granifera cinctus, obliquè recurvus. Apertura subquadrata, fusca. Columella concava; labrum subrotundum, prominens, ad suturam fissuratum, sinu parvulo, aperto, infra ad canalem basalem quasi junctum. — Long. 6-7 mill.; diam. max. 2 mill.
Hab. Insula Lifou. Vidi 6 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, elongated-subulate, acute, rather solid, brown-blackish, white apex. Whorls are about 18 (without apex), flattened, separated by a wavy suture lying below the slightly thick spiral cord of the precedent whorl, longitudinally costulate, transversally with four spiral cords. The first three cords as large as ribs, equidistant, slightly flattened, tubercled at the intersection with the ribs; the fourth spiral cord is much smaller preceding a waved suture. Gemmae of the first and third spiral cords are coloured in dark brown, a bit larger in the upper whorls, in the lower whorls there are seven equal central tubercles; interspaces are characterised by fine growing lines. Last whorl is slightly flattened and convex, leaning at the base, narrow around the siphon and with six tubercled spiral cords (the two inferior cords are smaller). Short siphon, open, with a thick granulated spiral cord, obliquely curved. Squarish aperture, brown. Concave columella; almost round lip, protruding, fissured near the suture, small sinus, open, below almost jointed to the siphon. — Length 6-7 mm; maximum diameter 2 mm. Locality: Lifou Island. I saw 6 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell conical with flat sides. Syntype 4.8 mm high. Teleoconch of c. 8 whorls. Three spiral cords present, the second appearing on the third whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. The second initially with thin tubercles becoming larger on the lower whorls. Spiral microsculpture of fine threads between the spiral cords. Base with three additional tubercled cords. Teleoconch brown. Protoconch missing in the syntype.

***Triforis (Mastonia) monacha* Hervier, 1898**
(Fig. 26)

Triforis (Mastonia) monacha Hervier, 1898: 257, illustrated by Hervier (1899: pl. 16, fig. 7).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1503; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, elongata, circa medium tumida, latere convexa, apice acuminata, solida, castaneo-brunnea, gemmis olivaceo seu luteo-lividis decorata. Anfractus 13-15; embryonales 3 carinati, striatuli, pallidè corneo-lutei; subsequentes 2 biserialiter granulosis, violaceo-albi; inferiores sutura undulata, crassiuscula, indistinctè discreti, longitudinaliter costulati et triserialiter gemmati, in interstitiis transversim densè et minutè striati. Costulae in sulcis transversis vix distinctae. Lirae gemmiferae, elevatae, subaequaliter distantes. Gemmae sphaericae, in prima et in tertia serie fortiores, intermediae minores in anfr. superioribus, in 3-4 inferioribus anfr. subaequales. Ultimus anfractus convexus, 5 liris gemmiferis (prioribus 4 aequalibus) cinctus, circa basalem canalem depressus. Canalis basalis brevis, unicarinatus, ferè clausus, recurvus. Apertura obliquè piriformis, intus brunnea. Columella arcuata, valdè obliqua. Labrum arcuatum, prominens, infernè columellae quasi junctum, supernè infra suturam breviter et rotundè fissuratum.* — Long. 6-7 mill.; diam. max. 2.50 mill.
Hab. Insula Lifou. Vidi 10 specimina, à H. P. Goubin, S. M., collecta.

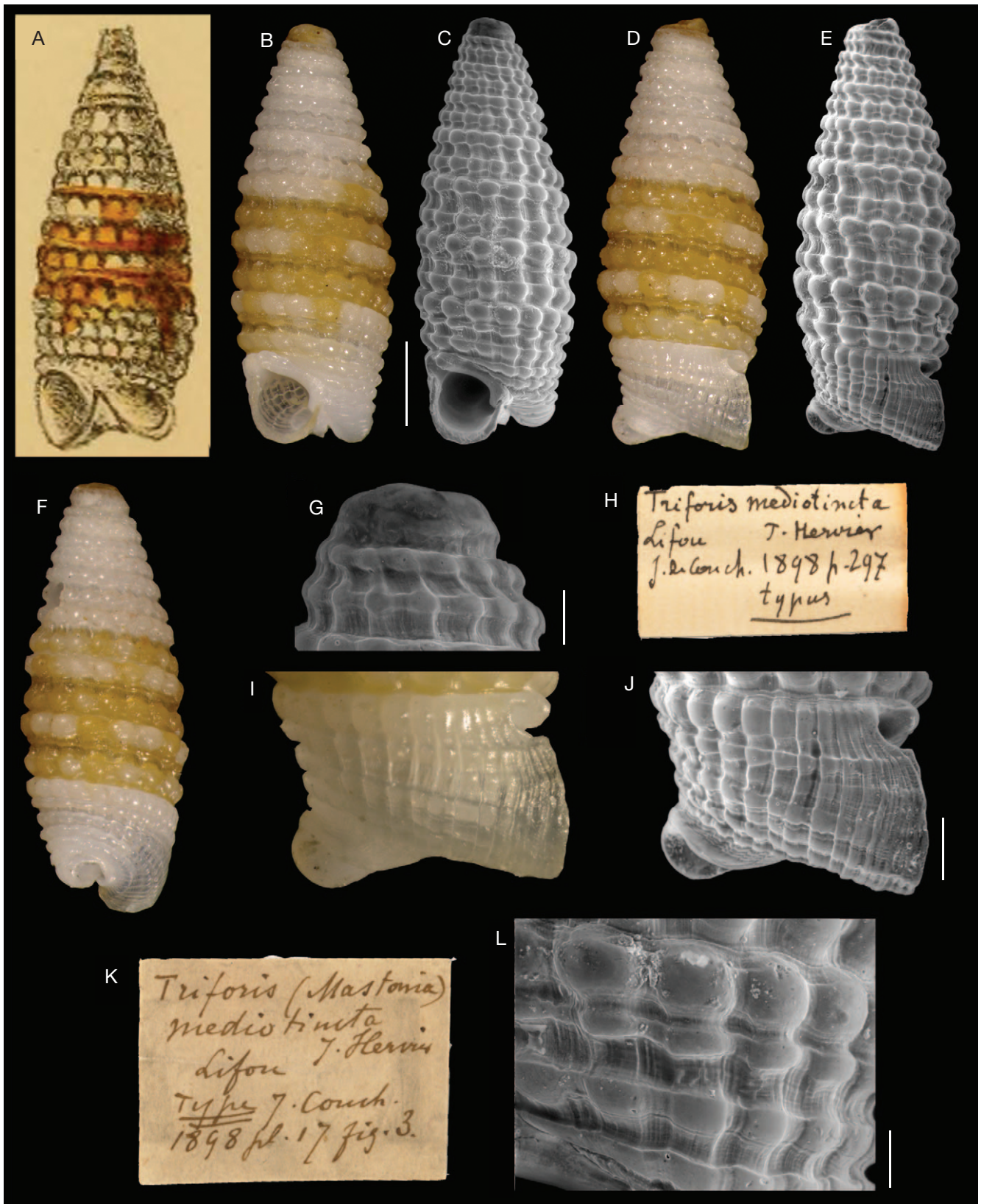


FIG. 24. — *Triforis (Mastonia) mediotincta* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-G, I-L**, syntype: MNHN-IM-2000-1490; front (**B, C**), side (**D, E**), back (**F**), apex (**G**), peristome (**I, J**), microsculpture (**L**); **H, K**, original label. Scale bars: B-F, 0.5 mm; G, L, 0.1 mm; I, J, 0.2 mm.

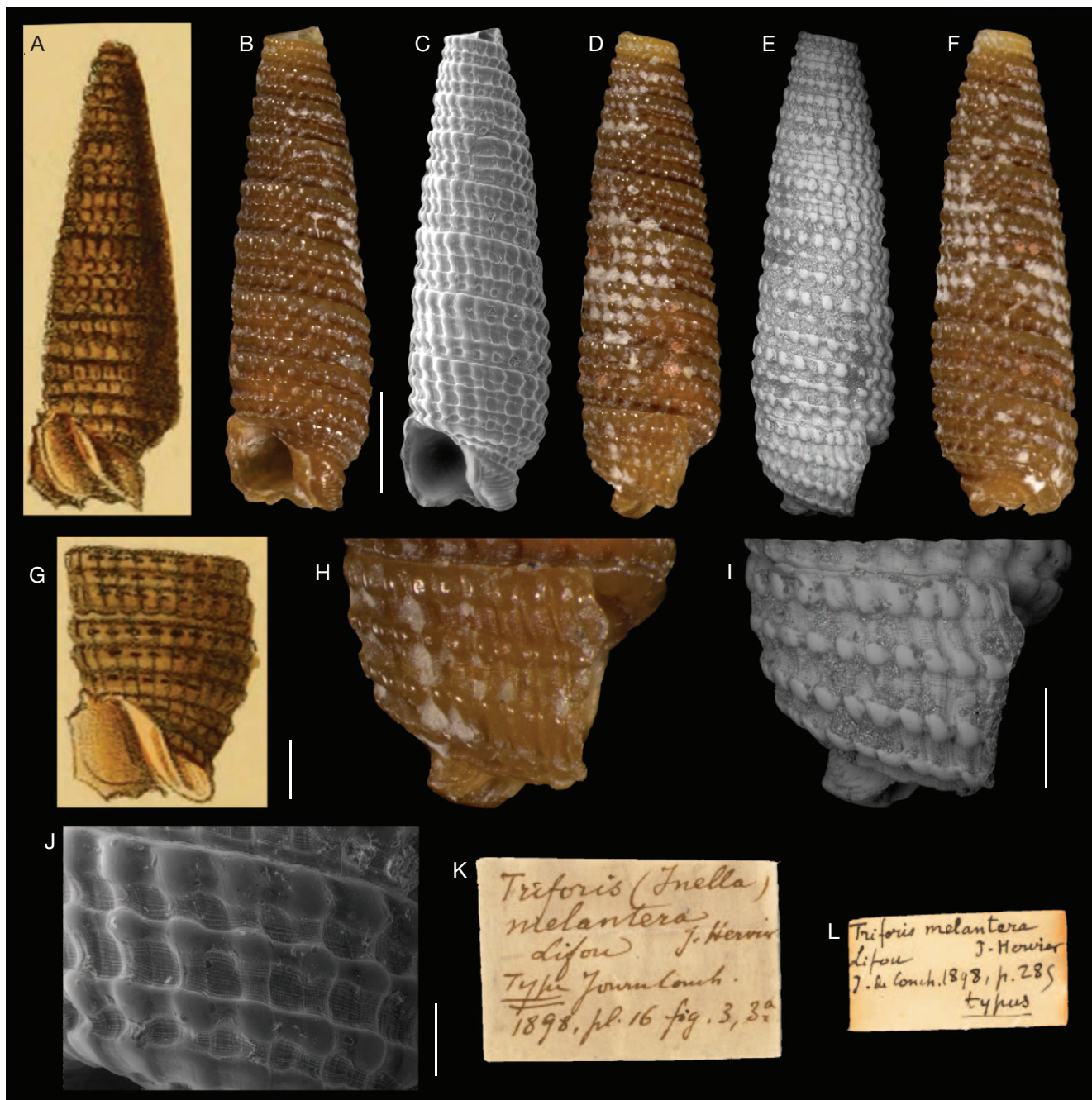


FIG. 25. — *Triforis (Inella) melantera* Hervier, 1898, Lifou, New Caledonia: **A, G**, original figures in Hervier (1898); **B-F, H-J**, syntype, MNHN-IM-2000-1493; front (**B, C**), side (**D, E**), back (**F**), peristome (**H, I**), microsculpture (**J**); **K, L**, original labels. Scale bars: B-F, 1 mm; H, I, 0.4 mm; J, 0.2 mm.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, elongated, broad near the centre, laterally convex, acute apex, solid, brownish, adorned by olivaceous or dark-yellow tubercles. From 13 to 15 whorls; embryonic whorls are three, carinated, striated, light brown-yellow; subsequent two whorls have two granulated spiral cords and are coloured in purplish-white; inferior whorls are separated by a wavy, slightly thick and indistinct suture, costulate longitudinally and with three tubercled spiral cords, transverse interspaces are densely and minutely striated. Ribs are barely distinct inside the cord interspaces. Spiral cords are tubercled, elevated, slightly equally spaced. Gemmae are spherical, stronger on the first and third series of spiral cords, in the superior whorls the intermediate tubercles are smaller, in the three-four inferior whorls they are slightly equal.

Convex last whorl, with five tubercled spiral cords (first four cords are equal), depressed near the siphon. Short siphon, unicarinated, almost closed, curved. Obliquely pyriform aperture, internally brown. Arched columella, strongly oblique. Arched lip, protruding, below almost attached to the columella, above shortly and roundly fissured under the suture. — Length 6-7 mm; maximum diameter 2.50 mm. Locality: Lifou Island. I saw 10 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtocoid. Both syntypes 5.2 mm high. Teleoconch of *c.* 9 whorls. Three spiral cords present, the second appearing on the fifth whorl. First and third cords with tubercles at the intersection with slightly prosocline axial ribs. Second cord initially with thin tubercles, becoming larger on the lower whorls.

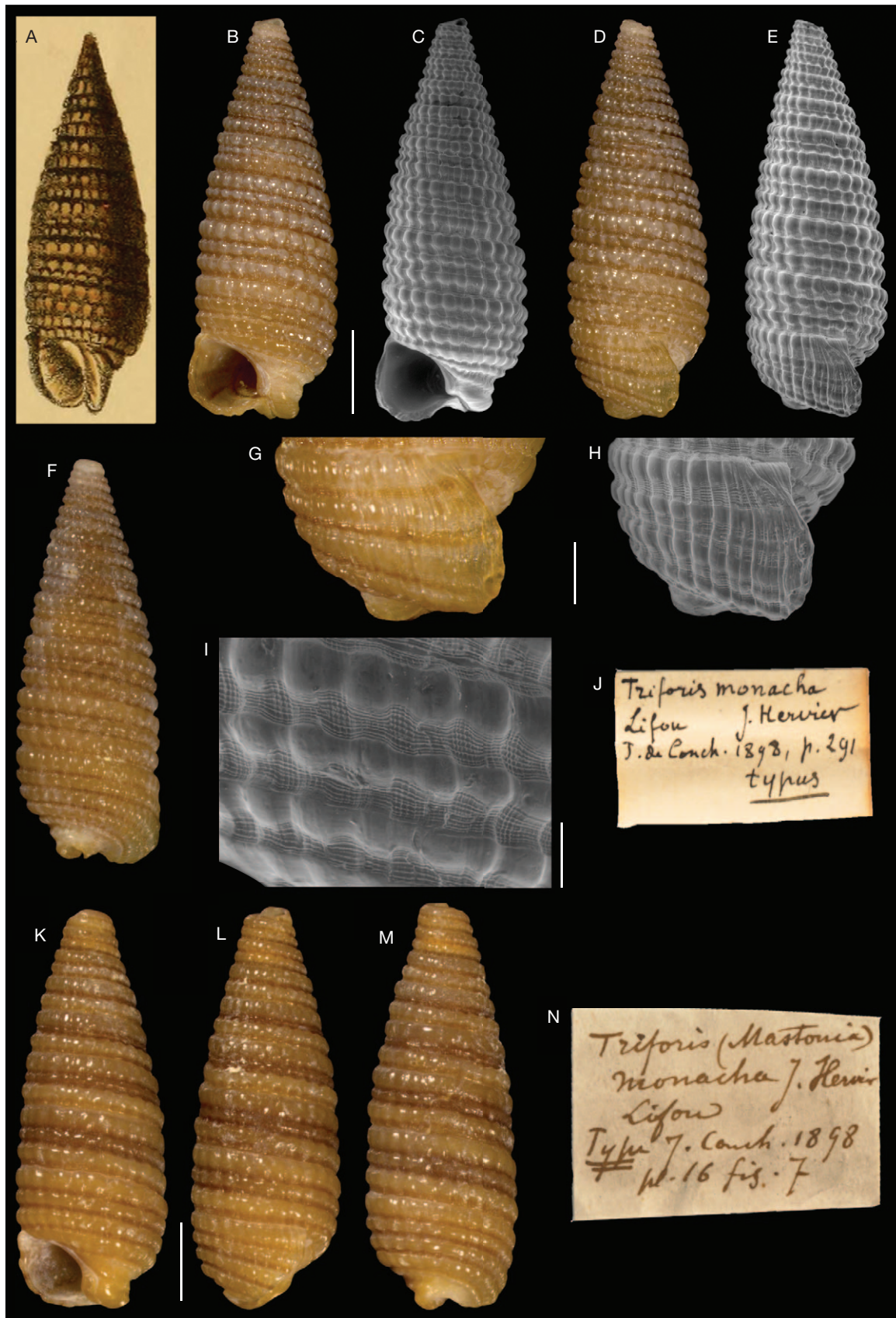


FIG. 26. — *Triforis (Mastonia) monacha* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-I**, syntype 1, MNHN-IM-2000-1503; front (**B, C**), side (**D, E**), back (**F**), peristome (**G, H**), microsculpture (**I**); **J, N**, original labels; **K-M**, syntype 2, MNHN-IM-2000-1503; front (**K**), side (**L**), back (**M**). Scale bars: B-F, K-M, 1 mm; G, H, 0.4 mm; I, 0.2 mm.

Spiral microsculpture of fine threads between the spiral cords. Peristome with additional cords below the second and third spiral cord. Posterior sinus shallow. Base with three additional tubercled cords. Teleoconch brown, with slightly darker interspaces between the spiral cords. Protoconch missing in the syntypes.

Triforis (Inella) montrouzieri Hervier, 1898
(Fig. 27)

Triforis (Inella) montrouzieri Hervier, 1898: 253, illustrated by Hervier (1899: pl. 16, figs 1-1a).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntypes. New Caledonia** • MNHN-IM-2000-1504; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, elongato-turrita, subulata, apice acuminata, solidula, nitida, luteo-fusca, violaceo cingulata. Anfractus 15-18: embryonales 3 violacei, carinati, striatuli; intermedii subplani, sutura crassiuscula, undulata, subprofunda discreti, transversim biserialiter in superioribus anfractibus, triseriatim in inferioribus lirati, liris gemmiferis, aequalibus, in eodem anfractu aequidistantibus (gemmae subsphaericis); longitudinaliter costulati, in lirarum interstitiis transversim minutissimè striatuli, quandoque laevigati. Ultimus anfractus ad basin depressus, circa canalem coarctatus et subplanatus, 6-7 liris gemmiferis (3-4 ultimis minoribus) ornatus. Apertura obliquè subrotunda, ad insertionem labri suprâ et infrâ ad canalem angulosa, lateraliter fissâ. Columella arcuata. Labrum ad canalem depressum, infrâ suturam planatum, medio semicirculare, obliquè prominens, sub sutura internè canaliculatum, inferius (ad ortum canalis) columellae quasi junctum. Sinus aperturalis parvus, rotundus, in canali suturali interno effossus. Canalis basalis brevis, apertus, oblique recurvus, unicarinatus. — Long. 10-12 mill.; diam. max. 3 mill. Hab. Insula Lifou. Vidi 20 specimina, à R. P. Goubin, S. M., collecta. Varietas β. Lilacea, J. Hervier. Omnino cinereo-violacea; archetypa similis in forma et sculptura. Hab. Insula Lifou. Vidi 10 specimina.*

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, turreted-elongated, subulate, acute apex, rather solid, bright, yellow-brown, with purple spiral cords. From 15 to 18 whorls: three purplish embryonic whorls, carinated, striated; slightly flattened intermediate whorls, separated by a waved, slightly thick and slightly deep suture, superior whorls with two spiral cords, inferior whorls with three spiral cords, cords are tubercled, equal, equally distant in the same whorl (tubercles are slightly spherical); longitudinally costulate, finely striated in the interspaces between the spiral cords, sometimes smooth. The last whorl is depressed at the base, narrow and slightly flattened near the siphon, adorned by six-seven tubercled spiral cords (last three-four ones are smaller). Obliquely and slightly rounded aperture, angled above at the intersection with the lip and below near the siphon, laterally fissured. Arched columella. The lip is depressed near the siphon, flattened below the suture, semi-circular in the centre, obliquely protruding, internally canaliculated under the suture, below (near the siphon) almost jointed to the columella. Small sinus of the aperture, rounded, internally carved in the suture. Short siphon, opened, obliquely curved, unicarinated. — Length 10-12 mm, maximum diameter 3 mm. Locality: Lifou Island. I saw 20 specimens collected by R. P. Goubin. Variety β *lilacea*, J. Hervier.

Entirely grey-violet, for the rest similar in shape and sculpture to the nominal species.

Locality: Lifou Island. I saw 10 specimens.

DIAGNOSIS. — Shell conical with rather flat sides. Illustrated syntype 7.1 mm high. Teleoconch of c. 11 whorls. Three spiral cords present, the second appearing on the fifth whorl. First and third cords with tubercles at the intersection with orthocline axial ribs. Second cord initially with thin tubercles becoming larger on the lower whorls. Spiral microsculpture of fine threads between the spiral cords. Peristome without additional cords. Base with three additional spiral cords of which the first with tubercles, the second with thin tubercles and the third smooth. Teleoconch brownish with the tubercles of the third (and sometimes second) cord whitish. Protoconch missing in the syntypes.

Triforis (Mastonia) papillata Hervier, 1898
(Fig. 28)

Triforis (Mastonia) papillata Hervier, 1898: 259, illustrated by Hervier (1899: pl. 17, fig. 2).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntypes. New Caledonia** • MNHN-IM-2000-1505; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, ovato-elongata, obesa, latere convexa, apice acuminata, solida, alba, brunneo interlirata, basi violacea. Anfractus circa 15, sutura indistincta, lineari, undulata discreti, liris gemmiferis 2 juxta suturas ornati. Gemmae validae, subaequales, alternae. Interstitia concava, suturae sulcis latiora, striis incrementi et lirulis transversim minutissimè decussata, brunneo-violaceo tincta. Ultimus anfractus convexus, brevis, 5 liris gemmiferis, decrescentibus cingulatus, omnino pallidè violaceo coloratus, ad ortum canalis coarctatus. Canalis basalis brevis, contortus, pluriliratus, valde recurvus, semiclausus. Apertura parvula, subquadrata, intus violacea. Peristoma continuum; columella angulata, supernè planata, lateraliter crassè cristata. Labrum subarcuatum, ad ortum canalis columellae cohaerens, supernè breviter et rotundè ad suturam fissuratum. — Long. 7-9 mill.; diam. max. 2.50-3 mill. Hab. Insula Lifou. Vidi 10 specimina, à H. P. Goubin, S. M., collecta.*

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, ovate-elongated, broad, laterally convex, acute apex, solid, white, with brownish spiral cords and purple base. About 15 whorls, separated by an indistinct, linear and waved suture, adorned by two tubercled spiral cords near the suture. Gemmae are alternately thick and slightly equal. Concave interspaces, wider than the suture, minutely crossed by growth lines and transversal small cords, brown-violet in colour. Convex last whorl, short, with five decreasing tubercled spiral cords, completely coloured in light purple, narrow near the siphon. Short siphon, convoluted, with multiple spiral cords, strongly curved, partly closed. Small aperture, squarish, internally purple. Continuous peristome; Angled columella, flattened above, laterally densely crested. Slightly arched lip, adjacent to the columellar channel, above shortly and roundly fissured near the suture. — Length 7-9 mm; maximum diameter 2.50-3 mm.

Locality: Lifou Island. I saw 10 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtocoid. Syntypes 5.1 and 5.2 mm high. Teleoconch of c. 7 whorls. Two spiral cords present, with a spiral thread on the last whorl just below the first spiral cord. Spiral cords with rather large tubercles. Spiral microsculpture of weakly granulated fine threads between the spiral cords. Base with two additional cords initially smooth and then developing thin tubercles. Teleoconch white to pink with dark brown interspace between the spiral cords. Protoconch missing in the syntypes.

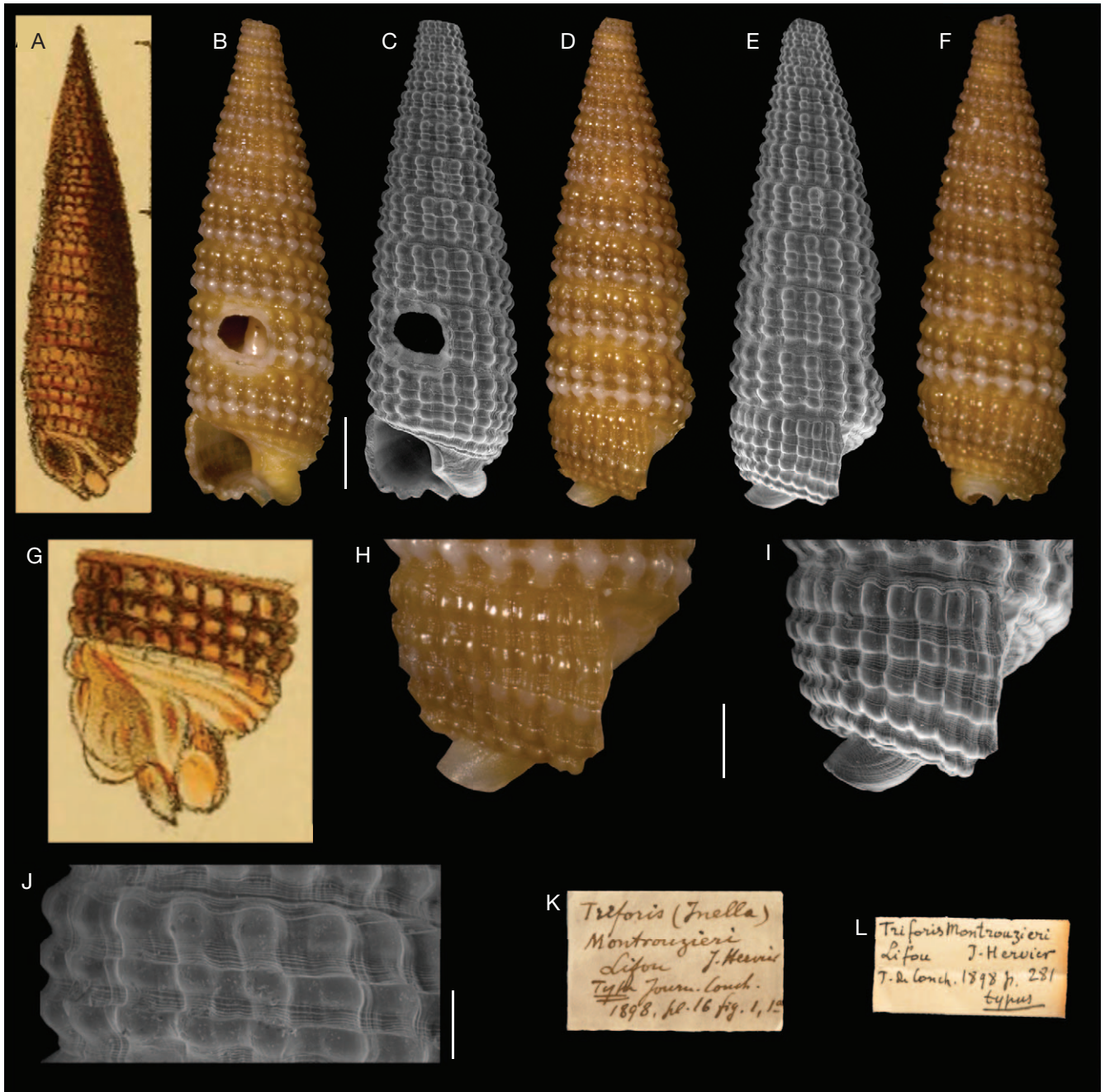


FIG. 27. — *Triforis (Inella) montrouzieri* Hervier, 1898, Lifou, New Caledonia: **A, G**, original figure in Hervier (1898); **B-F, H-J**, syntype, MNHN-IM-2000-1504; front (**B, C**), side (**D, E**), back (**F**), peristome (**H, I**), microsculpture (**J**); **K, L**, original labels. Scale bars: B-F, 1 mm; H, I, 0.5 mm; J, 0.1 mm.

Triforis (Mastonia) quadrimaculata Hervier, 1898
(Fig. 29)

Triforis (Mastonia) quadrimaculata Hervier, 1898: 264, illustrated by Hervier (1899: pl. 17, fig. 10).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — Syntype. New Caledonia • MNHN-IM-2000-502; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, ovato-elongata, obesa, apice acuminata, solida, alba, fasciis subquadratis fusco-nigris

maculata, circa canalem et aperturam nigro tincta. Anfractus 12 (?), sutura lineari indistinctè discreti, priores bilirati, inferiores liris 3 cingulati; lirae, prima et tertia crassae, gemmiferae, gemmis rotundis, junctis, aequalibus; lira intermedia multò minor, cohaerendo intercurrentes, gemmis lenticularibus ornata. Ultimus anfractus convexus, lentè versùs basin attenuatus, seriatim quinquegemmat, gemmis primae et tertiae seriei majoribus. Canalis brevissimus, unicarinatus, semiclausus, oblique recurvus. Apertura subtubiformis. Columella arcuata, nigro tincta. Labrum subrotundè prominens, ad ortum canalès infra columellae junctum. — Long. 4-4.50 mill.; diam. max. 2 mill.

Hab. Insula Lifou. Vidi 8 specimina, à R. P. Goubin, S. M., collecta.



FIG. 28. — *Triforis (Mastonia) papillata* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-I**, syntypes 1, MNHN-IM-2000-1505; front (**B**, **C**), side (**D**, **E**), back (**F**), peristome (**G**, **H**), microsculpture (**I**); **J**, Syntype 2, MNHN-IM-2000-1505; front; **K**, **L**, original labels. Scale bars: B-F, J, 1 mm; G-I, 0.4 mm.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, ovate-elongated, broad, acute apex, solid, white, spotted with squarish brown-blackish bands, coloured in black near the siphon and the aperture. Whorls are 12 (?), separated by an indistinct and linear suture, first whorls with two spiral cords, lower ones with three spiral cords; first and third cords are thick, tubercled, tubercles are rounded, jointed, equal; the intermediate cord

is much smaller, running very close to the others, adorned by lenticular tubercles. The last whorl is convex, slowly attenuated towards the base, with five series of tubercled spiral cords, tubercles from the first and third series are bigger. Very short siphon, unicarinated, partly closed, obliquely curved. Slightly tubular aperture. Arched columella, coloured in black. Protruding and slightly rounded lip, inferiorly attached to the

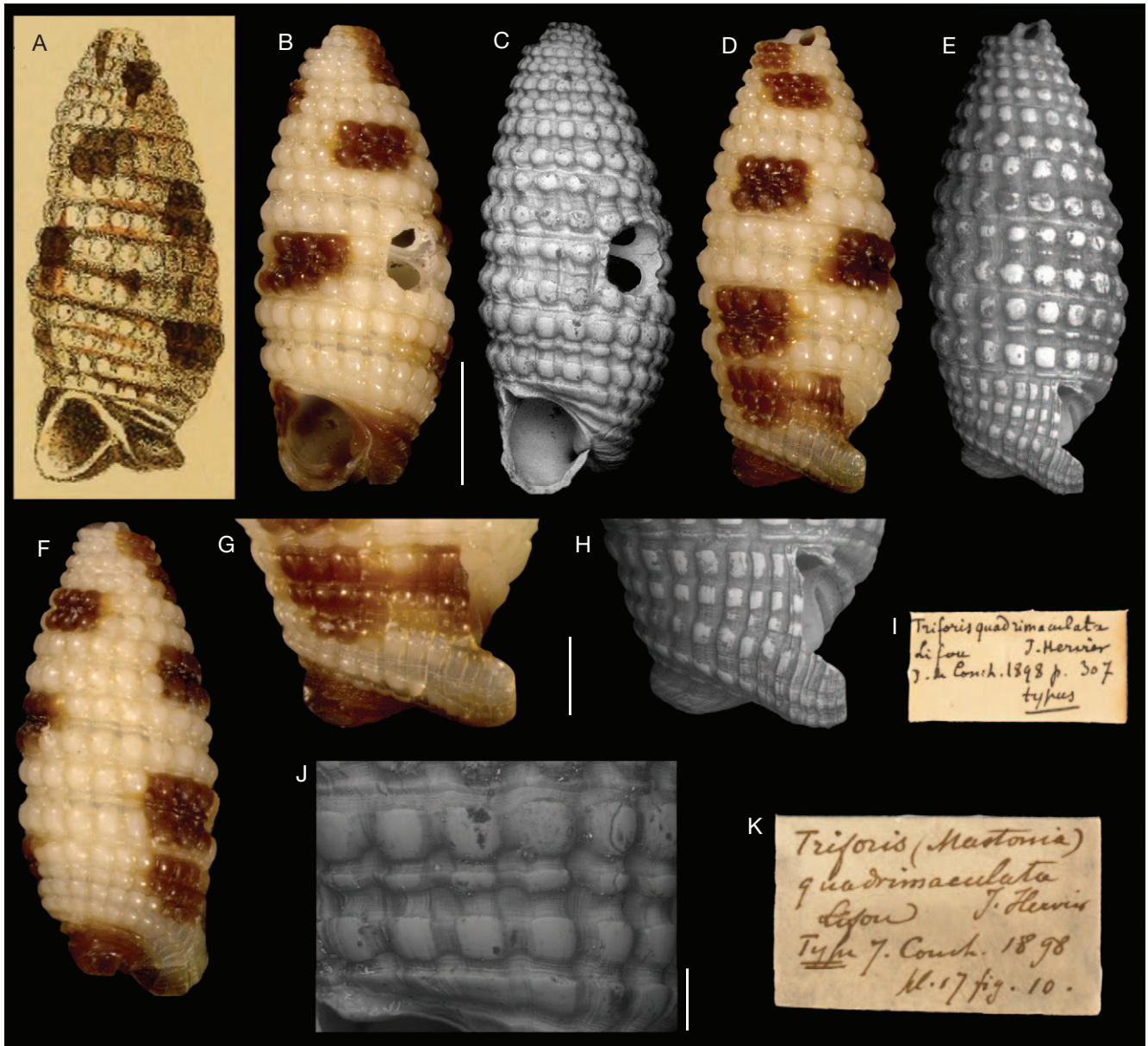


FIG. 29. — *Triforis (Mastonia) quadrimaculata* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-H, J**, Syntype, MNHN-IM-2000-502: front (**B, C**), side (**D, E**), back (**F**), peristome (**G, H**), microsculpture (**J**); **I, K**, original labels. Scale bars: B-F, 1 mm; G, H, 0.4 mm; J, 0.2 mm.

columella near the siphon. — Length 4-4.50 mm; maximum diameter 2 mm.

Locality: Lifou Island. I saw 8 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtocoid. Syntype 3.9 mm high. Teleoconch of *c.* 7 whorls. Three spiral cords present, the second appearing on the fifth whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Microsculpture of very fine spiral and axial threads crossing each other, giving a reticulate pattern. Peristome with additional cords below the second and third spiral cord. Base with three additional cords of which the first and second with tubercles, the third smooth. Teleoconch white with large square dark brown blotches, base and siphonal canal dark brown. Protoconch missing in the syntype.

Triforis (Inella) rutilans Hervier, 1898
(Fig. 30)

Triforis (Inella) rutilans Hervier, 1898: 255, illustrated by Hervier (1899: pl. 16, figs 4-4a).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1106; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, elongato-subulata, angusta, valde acuminata, vix solidula, nitidissime luteo-fulva. Anfractus 20-23: embryonales corneo-brunnei, bicarinati, verticaliter striatuli; intermedi*

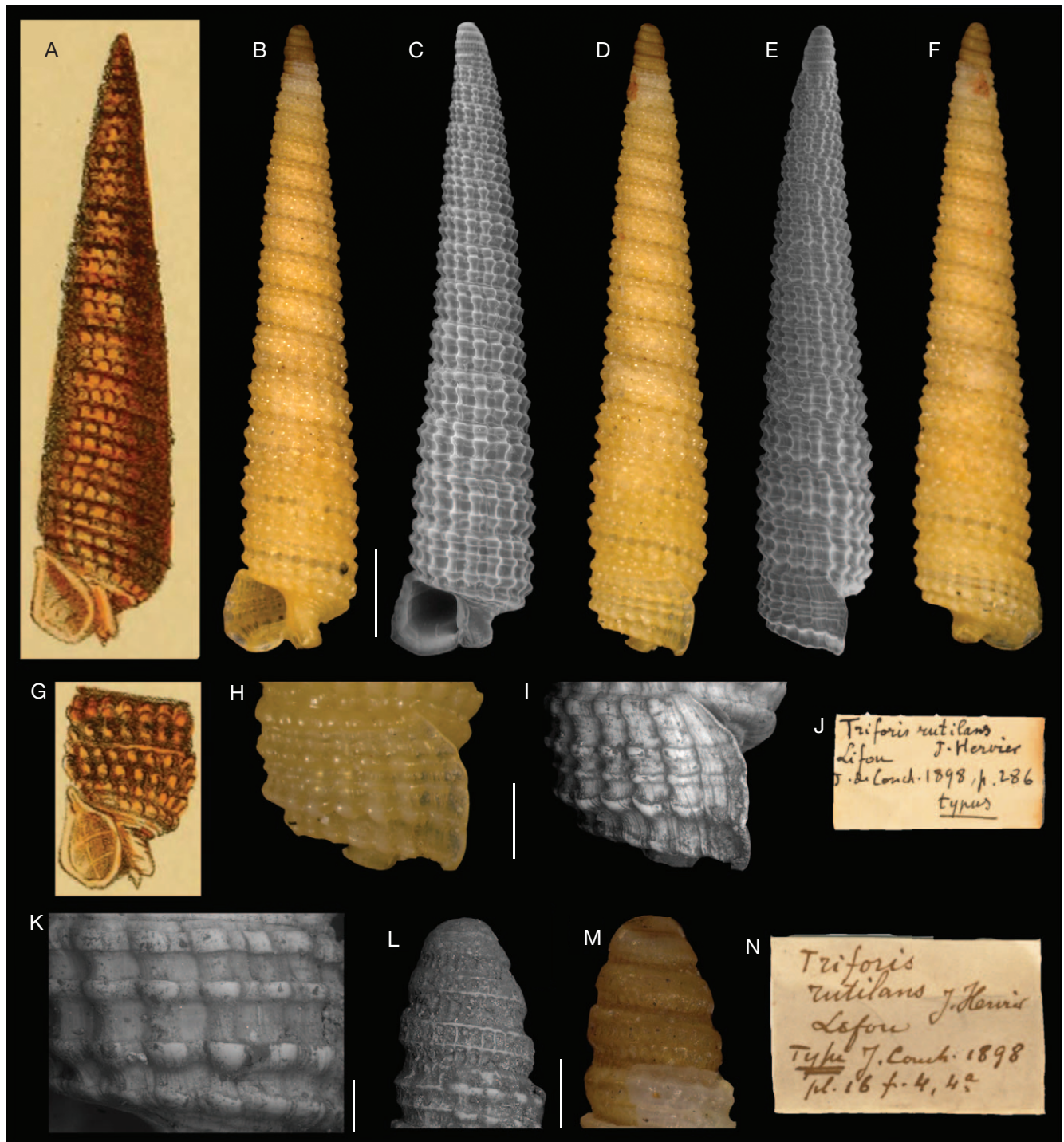


FIG. 30. — *Triforis (Inella) rutilans* Hervier, 1898, Lifou, New Caledonia: **A, G**, original figure in Hervier (1898); **B-F, H, I, K-M**, syntype, MNHN-IM-2000-1106; front (**B, C**), side (**D, E**), back (**F**), peristome (**H, I**), microsculpture (**K**), protoconch (**L, M**); **J, N**, original labels. Scale bars: B-F, 1 mm; H, I, 0.4 mm; K-M, 0.2 mm.

convexi, obliquè accrescentes, sutura lineari, subcanaliculata discreti, longitudinaliter costulati, transversis liris decussati. Costulae rotundae, laevigatae, intervallo aequales; lirae gemmiferae 3, costulis minores, mediana prominente; lira prima minor, medianae proximior; quarta lirula, undulata, sub lente vix obvia, suturam inferiorem supereminens. Ultimus anfractus convexus, 4 liris gemmiferis cinctus, versus basin declivis, ante canalem subplanatus ibique 2 lirulis ornatus. Canalis basalis brevis, apertus, obliquè recurvus. Apertura subpentagonalis. Columella medio concava, supernè planate; labrum prodiens, quadrangulare, in-

fernè ad canalem basalem quasi junctum; supernè lateraliter fissuratum; sinus suturalis parvulus, subrotundus, in ultima lira effossus. — Long. 8-9 mill.; diam. max. 2 mill.

Hab. Insula Lifou. Vidi 10 specimina, à R. P. Goubin, S. M., collecta.

Varietas β. Violacea, J. Hervier.

Archetypo similis in forma et sculptura, violaceo colore omninò tincta; anfractus embryonales corneo-lutei.

Hab. Insula Lifou: 4 specimina vidi.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, subulate-elongated, narrow, strongly acute, rather solid, very bright yellow-brownish. From 20 to 23 whorls: embryonic whorls are brownish, bicarinate, vertically striated; intermediated whorls are convex, obliquely growing, separated by a linear and slightly canaliculated suture, longitudinally costulate, transversally crossed by spiral cords. Ribs are rounded, smooth, equally distant; three tubercled spiral cords, smaller than the ribs, the central one is protruding; the first cord is smaller, closer to the central one; the fourth cord is waved, barely visible, overlaying the inferior suture. The last whorl is convex, with four tubercled spiral cords, leaning towards the base, flattened near the siphon where it is bears two small spiral cords. Short siphon, open, obliquely curved. Subpentagonal aperture. Columella is concave in the centre, flattened above; protruding lip, quadrate, below almost attached to the siphon; above laterally fissured; small sutural sinus, slightly rounded, carved in the last spiral cord. — Length 8-9 mm, maximum diameter 2 mm. Locality: Lifou Island. I saw 10 specimens collected by R. P. Goubin. Variety β *violacea*, J. Hervier.

Similar to the nominal species in form and sculpture, completely violet in colour; corneous-yellow protoconch. Locality: Lifou Island. I saw 4 specimens.

DIAGNOSIS. — Shell elongated with flat sides. Syntype 7.8 mm high. Teleoconch of 15 whorls. Three tubercled spiral cords present since the first teleoconch whorl. An extra smooth spiral thread present suprasuturally. Peristome with additional cords below the first and the second spiral cords. Posterior sinus shallow. Base with three additional cords of which the first very prominent and tubercled, the other two weak and smooth. Multispiral protoconch of *c.* 4.5 whorls with two strong spiral keels and axial riblets. First 1.5-2 teleoconch whorls white, other teleoconch whorls yellow to light brown. Protoconch brown.

Triforis (Mastonia) taeniolata Hervier, 1898
(Fig. 31)

Triforis (Mastonia) taeniolata Hervier, 1898: 258, illustrated by Hervier (1899: pl. 16, figs 8).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — Syntype. New Caledonia • MNHN-IM-2000-1249; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, elongatula, circa medium tumida, latere convexa, apice acuminata, solida, flava, rufo-taeniata. Anfractus circa 12 (apice fracto), lentè accrescentes, sutura profunda, canaliculata discreti, longitudinaliter costulati, transversim 3 liris gemmiferis ornat, interstitiis laevigatis. Costulae liris majoribus subaequales; lirae dispariles, mediana minor, prima et tertia multo majores; lira inferiore inter gemmas rufo picta. Ultimus anfractus subconvexus, ad ortum canal is coarctatus, 5 liris gemmiferis (prima et quarta validioribus) praecinctus. Canalis basalis brevis, obliquus, valdè recurvus, ferè clausus, unicarinatus. Apertura subrotunda, infra et supra lateraliter angulosa. Columella arcuata, valdè obliqua. Labrum arcuatum, prominens, infernè columellae quasi junctum, supernè infra suturam breviter et rotundè fissuratum. — Long. 5-6 mill.; diam. max. 2-2.50 mill. Hab. Insula Lifou. Vidi 5 specimina, à R. P. Goubin, S. M., collecta.*

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, elongated, broad centrally, laterally convex, acute apex, solid, yellowish, red-banded. About 12 whorls (without apex), slowly growing, separated by a deep and canaliculated suture, longitudinally costulate, adorned by three tubercled spiral cords, smooth interspaces. The ribs of the bigger spiral cords are slightly equal, unequal spiral cords, the central one is smaller, the first and third ones are much larger; the inferior cord is coloured in red. The last whorl is slightly convex, narrow near the siphon, with

five tubercled spiral cords (first and fourth cords are stronger). Short siphon, oblique, strongly curved, almost closed, unicarinated. Slightly rounded aperture, laterally angled below and above. Arched columella, strongly oblique. Arched lip, protruding, below almost attached to the columella, above roundly and shortly fissured under the suture. — Length 5-6 mm; maximum diameter 2-2.50 mm.

Locality: Lifou Island. I saw 5 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell cyrtocooid. Syntype 3.9 mm high. Teleoconch of *c.* 7.5 whorls. Three spiral cords present, the second appearing on the fifth whorl. First and third cords with tubercles at the intersection with rather orthocline ribs. Second cord initially as a fine thread, but later developing thin tubercles. Base with two additional spiral cords of which the first tubercled and the second rather smooth. Teleoconch light brown to yellowish, with the brown interspaces between the tubercles on the third spiral cord.

Triforis (Mastonia) troglodytes Hervier, 1898
(Fig. 32)

Triforis (Mastonia) troglodytes Hervier, 1898: 263, illustrated by Hervier (1899: pl. 17, fig. 8).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — Syntypes. New Caledonia • MNHN-IM-2000-1506; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, minuta, ovata, obesula, apice acuminata, solida, luteo-cornea, inter gemmas rufo picta. Anfractus 10-12: embryonales 4 cornei, carinati, striatuli; intermedii sutura canaliculata discreti, longitudinaliter costulati, costulis rotundis, transversim liris duabus, elevato-planatis, gemmiferis interruptè rufo pictis decussati; gemmae elongatae, distantes, nitidè corneolae. Ultimus anfractus plano-convexus, circa basin depressus, 6 liris gemmiferis minoribus ornatus. Canalis brevissimus, carinatus, apertus, obliquè recurvus. Apertura obliquata, piriformis, lateraliter ad suturam fissurata. Columella arcuata. Labrum inferius subrotundum, in aperturam prominens, latere planatum, ad suturam angulose columellae junctum, in angulo sinu parvulo, rotundo munitum. — Long. 2.50-3 mill.; diam. max. 1.50 mill.*

Hab. Insula Lifou. Vidi 10 specimina. à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, small, ovate, broad, acute apex, solid, yellow-brownish, coloured in red between tubercles. From 10 to 12 whorls: four brown embryonic whorls, carinated, striated; intermediate whorls are separated by a canaliculated suture, longitudinally costulate, ribs are rounded, with two spiral cords, elevated-flattened, tubercled and crossed with red interspaces between the tubercles; elongated tubercles, distant, brightly corneous. The last whorl is flattened and convex, depressed near the base, adorned by six smaller tubercled spiral cords. Very short siphon, carinated, open, obliquely curved. Oblique aperture, pyriform, laterally fissured near the suture. Arched columella. Slightly rounded inferior lip, protruding on the aperture, laterally flattened, angled near the suture and attached to the columella, with a small and rounded sinus at the angle. — Length 2.50-3 mm; maximum diameter 1.50 mm. Locality: Lifou Island. I saw 10 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell pupoid. Illustrated syntype 2.4 mm high. Teleoconch of *c.* 6 whorls. Three spiral cords present, the second appearing only on the last whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord initially with thin tubercles becoming larger towards the peristome. Base with two tubercled additional spiral cords. Teleoconch white with the interspaces between the tubercles of the spiral cords brown. Protoconch missing in the syntypes.



FIG. 31. — *Triforis (Mastonia) taeniolata* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B–J**, syntype, MNHN-IM-2000-1249; front (**B, C**), side (**D, E**), back (**F**), peristome (**G, H**), apex (**I**), microsculpture (**J**); **K**, original label. Scale bars: B–F, 0.5 mm; G, H, 0.4 mm; I, J, 0.2 mm.

Triforis (Mastonia) turricula Hervier, 1898
(Fig. 33)

Triforis (Mastonia) turricula Hervier, 1898: 263, illustrated by Hervier (1899: pl. 17, fig. 9).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntype**. New Caledonia • MNHN-IM-2000-1319; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa*, elongato-turrita, medio turgidula, apice acuminata, solida, alba, basi fusca, fasciis fulvis

maculata. Anfractus 13–16: embryonales 4 rotundi, carinati, striatuli, cornei; intermedii sutura lineari discreti, subconcavi, longitudinaliter costulati, costulis rotundis, nitidè laevigatis, cingulis 3 gemmiferis ornati (2 tantum in anfr. 4 subembryonalibus). Gemmae inaequales: in prima serie majores, tuberculosae, eminentes; in tertia serie paulò minores, subrotundae, intermediae lenticulares, multò minores; interstitiis laevibus, translucidis. Anfractus ultimus convexus, liris gemmiferis 5 decoratus (prima lira majore, caeteris decrescentibus), circà canalem paululùm depressus. Canalis brevis, unicarinatus, oblique recurvus, ad ortum clausus. Apertura obliquè piriformis, lateraliter ad suturam fissurata. Columella arcuata, fusca, propè canalem crassiuscula. Labrum infra columellae adhaerens, subrotundè in medio prominens, latere planatum,

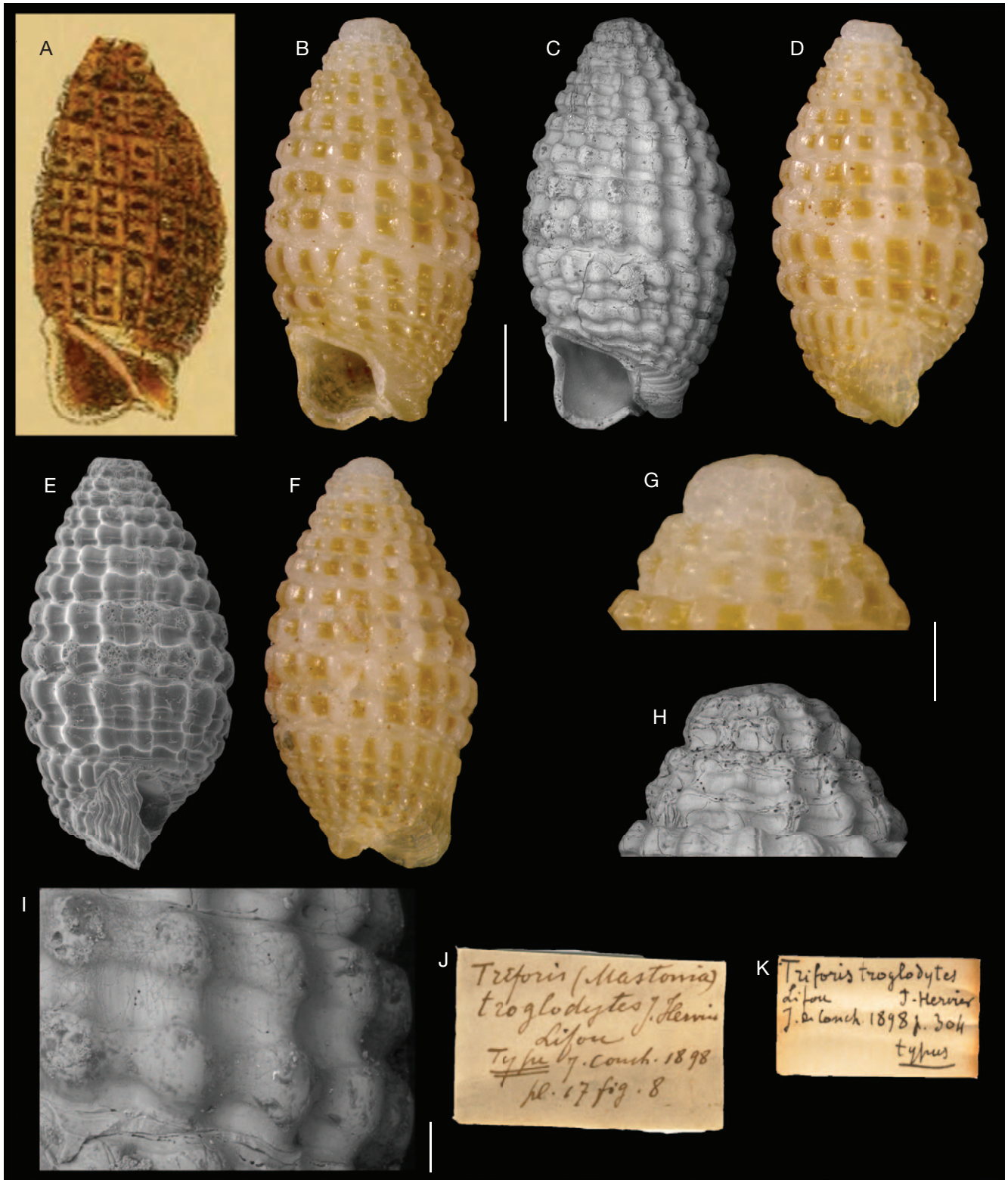


FIG. 32. — *Triforis (Mastonia) troglodytes* Hervier, 1898, Lifou, New Caledonia; **A**, original figure in Hervier (1898); **B-I**, syntype, MNHN-IM-2000-1506; front (**B, C**), side (**D, E**), back (**F**), apex (**G, H**), microsculpture (**I**); **J, K**, original labels. Scale bars: B-F, 0.5 mm; G, H, 0.2 mm; I, 0.1 mm.

ad suturam angulosè columellae supra junctum, subsutura internè canaliferum et sinu parvulo munitum. — Long. 4-6.50 mill.; diam. max. 1.50-2.50 mill.
Hab. Insula Lifou. Vidi 40 Specimina, à R. P. Goubin, S. M., collecta.

Varietas β. Albicans, J. Hervier.
Basi alba, fasciis fulvis minoribus maculata; lira prima non præminens, liræ tertiæ subæqualis.
Hab. Insula Lifou. Vidi 4 specimina.

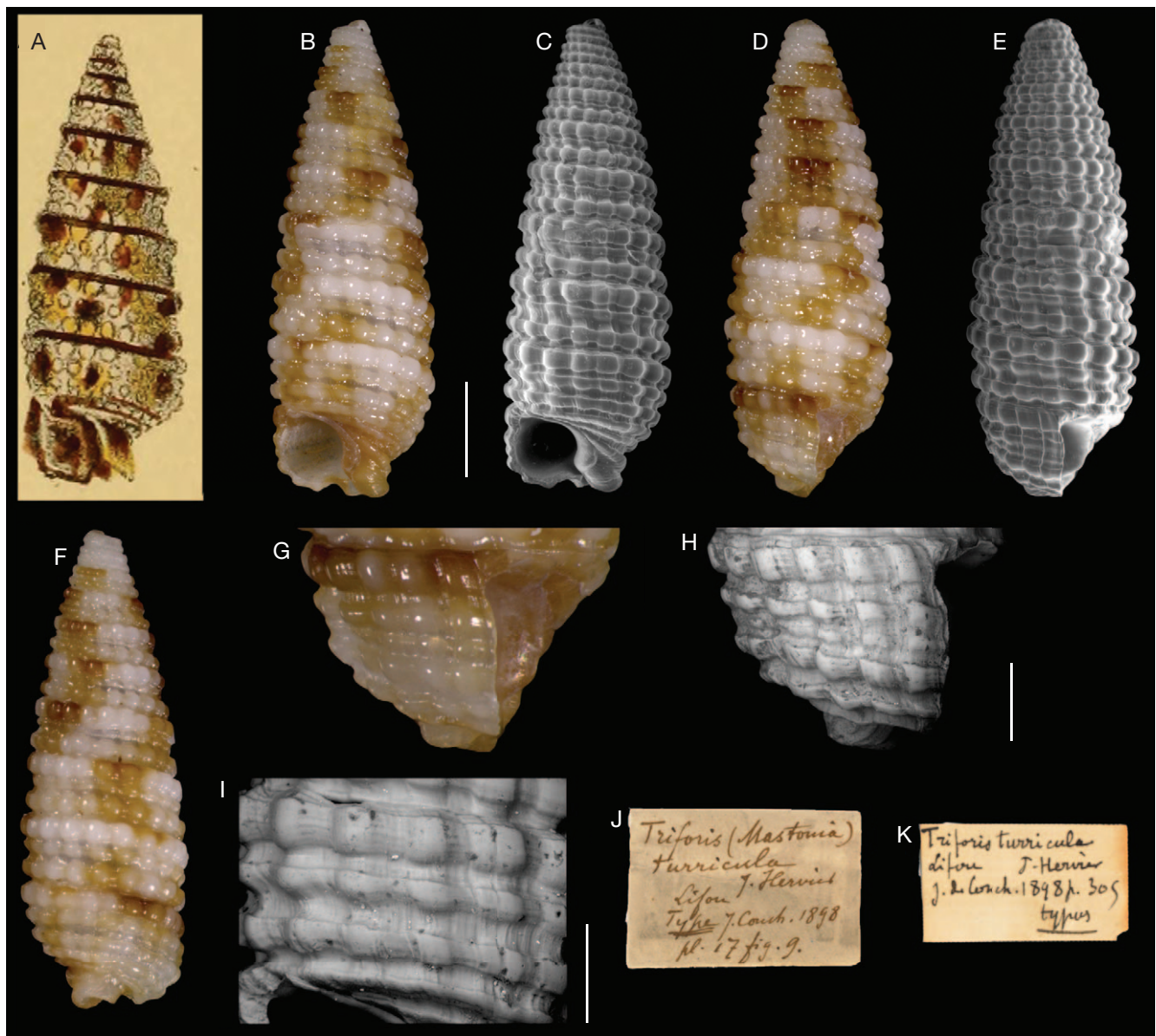


FIG. 33. — *Triforis (Mastonia) turricula* Hervier, 1898, Lifou, New Caledonia, **A**, original figure in Hervier (1898); **B-I**, syntype, MNHN-IM-2000-1319; front (**B**, **C**), side (**D**, **E**), back (**F**), peristome (**G**, **H**), microsculpture (**I**); **J**, **K**, original label. Scale bars: B-F, 1 mm; G-I, 0.4 mm.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, turreted-elongated, broad at the centre, acute apex, solid, white, brown base, spotted with brown bands. From 13 to 16 whorls: four rounded embryonic whorls, carinated, striated, corneous; intermediate whorls separated by a linear suture, adorned by three tubercled spiral cords (two in the four subembryonic whorls). Unequal tubercles: bigger in the first series of spiral cords, tubercular, prominent; slightly smaller in the third series, slightly rounded, intermediate tubercles are lenticular, much smaller; smooth interspaces, translucent. The last whorl is convex, decorated with five tubercled spiral cords (first cord is bigger, the others decreasing), slightly depressed near the siphon. Obliquely pyriform aperture, laterally fissured near the suture. Arched columella, brown, quite thick near the siphon. Below the lip is attached to the columella, slightly rounded and protruding in the centre, laterally flattened, angled near the suture and attached to the columella, internally channeled under the suture and with a small sinus. — Length 4-6.50 mm; maximum diameter 1.50-2.50 mm.

Locality: Lifou Island. I saw 40 specimens collected by R. P. Goubin. Variety β . *albicans*, J. Hervier.

White base, brown bands less maculated; first spiral cord not prominent, third cord almost similar.

Locality: Lifou Island. I saw 4 specimens.

DIAGNOSIS. — Shell conical with flat sides. Syntype 5.4 mm high. Teleoconch of *c.* 9 whorls. Three spiral cords present, the second appearing on the fourth whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord initially with thin tubercles becoming larger towards the last whorl. Peristome incomplete in the syntype, but showing at least one additional spiral cord below the second. Base with three additional cords of which the first and second initially smooth but then developing tubercles towards the peristome, the third smooth. First teleoconch whorl white, other whorls white with brown blotches, darker on the first spiral cord. The base and the siphonal canal brown. Protoconch missing in the syntype.

Triforis (Mastonia) ustulata Hervier, 1898
(Fig. 34)

Triforis (Mastonia) ustulata Hervier, 1898: 260, illustrated by Hervier (1899: pl. 17, fig. 4).

TYPE LOCALITY. — Lifou, New Caledonia.

TYPE MATERIAL. — **Syntypes. New Caledonia** • MNHN-IM-2000-1507; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *T. sinistrorsa, elongato-turrita, obesula, latere convexa, apice acuminata, solida, nitide aurantiaca, albo-zonata, circa basin et prope apicem ustulato-rufo cingulata. Anfractus 13-15: embryonales 4 cornei, unicarinati, striatuli; intermedii sutura lineari, indistincta discreti, gemmis aequalibus biserialiter ornati (serie prima aurantiaca, serie inferiore alba), sulco subprofundo separatis, interstitiis sub lente minutissime striatulis. Ultimus anfractus convexus, liris 4 gemmiferis, decrescentibus cinctus (3 inferioribus ustulato-rufo tinctis), ad ortum canalis breviter coarctatus. Canalis basalis brevis, unicarinatus, obliquus, valde recurvus, semiclausus. Apertura parvula, oblique pyriformis. Peristoma continuum. Columella flexuose arcuata, ad ortum canalis callositate munita; labrum arcuatum, oblique directum, inferne canali cohaerens, supernè lateraliter fissuratum. — Long. 4.25-5.50 mill.; diam. max. 1.75-2.25 mill.*

Hab. Insula Lifou. Vidi 8 specimina, à R. P. Goubin, S. M., collecta.

TRANSLATION OF THE LATIN TEXT. — Sinistral shell, turreted-elongated, broad, laterally convex, acute apex, solid, bright orange, with white bands, with brownish-red spiral cords near the base and the apex. From 13 to 15 whorls: four corneous embryonic whorls, unicarinated, striated; intermediate whorls separated by a linear and indistinct suture, with two series of spiral cords adorned by equal tubercles (first series is orange, the inferior one is white), separated by a deep groove, interspaces are minutely striated. The last whorl is convex, with four decreasing tubercled spiral cords, (three inferior cords are coloured in brownish-red), shortly narrow near the siphon. Short siphon, unicarinated, oblique, strongly curved, partly closed. Small aperture, obliquely pyriform. Continuous peristome. Sinuously arched columella, with a callus near the siphon; arched lip, obliquely directed, below attached to the siphon, above laterally fissured. — Length 4.25-5.50 mm; maximum diameter 1.75-2.25 mm. Locality: Lifou Island. I saw 8 specimens collected by R. P. Goubin.

DIAGNOSIS. — Shell conical with flat sides. Syntypes 3.3 and 5.5 mm high. Teleoconch of 7-8 whorls. Two spiral cords present and with tubercles at the intersection with rather prosocline axial ribs. Spiral microsculpture of finely granulate threads. Peristome with an additional cord below the first. Base with three cords of which the first developing flat tubercles and the other two smooth. Multispiral protoconch of 5 whorls with one strong spiral keel and axial riblets. First 1.5-2 teleoconch whorls white, other whorls yellowish. Second spiral cord brown on the third, fourth and last teleoconch whorl, but white on the sixth whorl, then again brown on the last whorl. First cord on the base brown. Protoconch brown.

SPECIES DESCRIBED BY A. ISSEL

Arturo Issel described four species of triphorids. In the MNHN, we found only a syntype of *Triphoris perlatus* Issel, 1869.

Triphoris perlatus Issel, 1869
(Fig. 35)

Triphoris perlatus Issel, 1869: 152, based on the illustration by Savigny 1817: Coquilles, pl. 4, fig. 4.

TYPE LOCALITY. — Red Sea.

TYPE MATERIAL. — **Syntypes. Red Sea** • MNHN-IM-2000-1582; 1 specimen; no locality • MSNG: 1 specimen; “spiagge emerse del Mar Rosso” [raised Red Sea beaches].

ORIGINAL DESCRIPTION. — *Testa elongato-fusiformi, acuminata, nitida, albida; anfractibus 12-13 planis, angustis, lentissime crescentibus, duplici ordine margaritarum ornatis; ultimo anfractu brevi ad peripheriam subangulato, ad basim transversim costato; apertura ovato-angusta, obliqua, canali brevissimo terminata. — Altit. millim. 4-5; lat. 11/2-11/3.*

[Latin diagnosis followed by a discussion in Italian]

TRANSLATION OF THE LATIN TEXT. — Elongated-fusiform shell, acute, bright, white; from 12 to 13 flat whorls, narrow, very slowly growing, adorned by a double series of granules; last whorl is short and slightly angled at the periphery, costulate at the base; oval and narrow aperture, oblique, ending with a very short siphon. — Length 4-5 mm; diameter 1 1/2-1 1/3

DIAGNOSIS. — MNHN syntype 4.7 mm high, but missing the apex. Shell cyrtocoenoid with *c.* 9 (MNHN syntype) to *c.* 13 (Savigny's figure) flat whorls, with two main spiral cords with tubercles at the intersection with slightly prosocline axial ribs and a third cord developing in between in the lower half of the shell, initially as a fine smooth cord and with well-developed tubercles only on the last whorl. Peristome missing in the MNHN syntype. Base with three, apparently tubercled, additional cords. MSNG specimen with multispiral protoconch. MNHN syntype generally whitish-greyish, but colour unreliable due to the state of the specimen; still an orange stripe is visible between the main cords, suggesting a dichromatic colour pattern.

REMARKS. — Issel's original description is based on the specimen illustrated by Savigny (1817) (see also Bouchet & Danrigal (1982)). The resolution of this figure is very low and the diagnostic characters are not present in sufficient detail. The MNHN syntype is in terrible condition, lacking the apex, part of the last whorl, and being very worn. Still, it matches Savigny's illustration well. The MSNG syntype is in better condition. Its label clearly states that the specimen comes from raised beaches and is thus a fossil specimen.

SPECIES DESCRIBED BY F. P. JOUSSEAUME

Félix Pierre Jousseume wrote two important reviews of the family globally (Jousseume 1884) and on the Red Sea (Jousseume 1898) resulting in the description of approximately forty species. Type material is supposed to be entirely in the MNHN, but we did not find type specimens of *Mastonia alveata* Jousseume, 1898, *Inella ile* Jousseume, 1898, *Inella mariei* Jousseume, 1884 and *Mastonia plecta* Jousseume, 1898.

He also introduced the following replacement names: *Triforis arthuri* Jousseume, 1884 for *Triforis variegatus* A. Adams, 1854, *Triforis dunkeri* Jousseume, 1884 for *Triforis cingulata* Dunker, 1860, *Mastonia harperi* Jousseume, 1884 for *Triforis alternata* Pease, 1861, *Triforis kanainus* Jousseume, 1884 for *Triforis gracilis* Pease, 1871 and *Mastonia peasi* Jousseume, 1884 for *Triforis affinis* Pease, 1861.



FIG. 34. — *Triforis (Mastonia) ustulata* Hervier, 1898, Lifou, New Caledonia: **A**, original figure in Hervier (1898); **B-K**, syntype 1, MNHN-IM-2000-1507; front (**B**, **C**), side (**D**, **E**), back (**F**), protoconch (**G**, **H**), microsculpture (**I**), peristome (**J**, **K**); **L-N**, syntype 2, MNHN-IM-2000-1507; front (**L**), side (**M**), back (**N**); **O**, **P**, original labels. Scale bars: B-F, 0.5 mm; G-I, 0.2 mm; J, K, 0.4 mm; L-N, 1 mm.

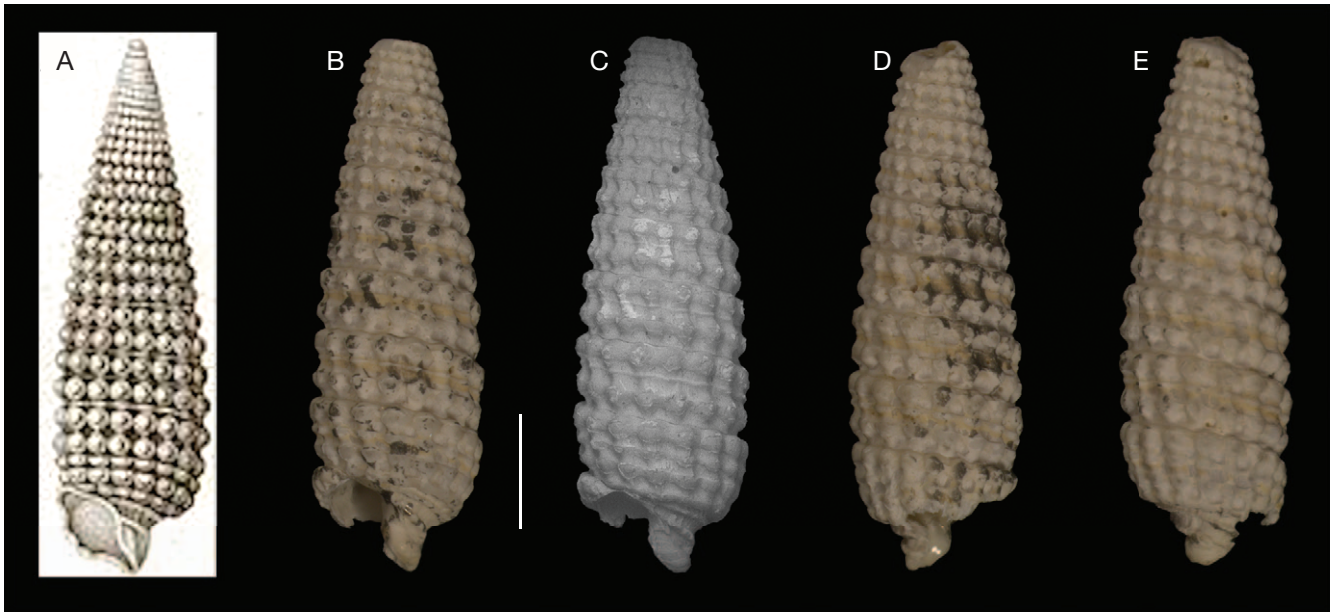


FIG. 35. — *Triphoris perlatus* Issel 1869, unknown locality: **A**, original figure in Savigny (1817); **B-E**, syntype, MNHN-IM-2000-1582; front (**B**, **C**), side (**D**), back (**E**). Scale bar: B-E, 1 mm.

Mastonia aegle Jousseaume, 1884
(Fig. 36)

Mastonia aegle Jousseaume, 1884: 256, pl. 4, fig. 12.

ORIGINAL LOCALITIES. — New Caledonia, La Réunion.

TYPE MATERIAL. — **Syntypes**. New Caledonia • MNHN-IM-2000-738; 7 specimens • MNHN-IM-2000-740; 6 specimens • MNHN-IM-2000-1496; 2 specimens. La Réunion • MNHN-IM-2000-741; 1 specimen.

ORIGINAL DESCRIPTION. — *Testa elongato-turrita, antice perparum tumida, solida, cinereo-flava, tuberculis nitentibus ornata; anfractibus 15, irregulariter (primi laevigati, sequentes tuberculis biseriatim dispositis ac suturam impressam obtegentibus, cincti) crescentibus; ultimo antice attenuato, costulis quinque moniliformibus, armato; apertura subquadrato-rotundata, lateraliter fissa; canali brevi, recurvo, superne oblique uni-costulato, munita.* — Long. 4,5-6,5; lat. 1,6-1,1 millim. [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Turreted-elongated shell, anteriorly slightly swollen, solid, ashen-brown, adorned by bright tubercles; 15 whorls, irregularly growing (first whorls smooth, subsequent ones characterised by two series of tubercles which cover the impressed suture); last whorl anteriorly attenuated and with five moniliform ribs; squarish-rounded aperture, laterally fissured; short siphon, curved, above and obliquely with one rib. — Length 4.5-6.5; diameter 1.6-1.1 mm.

DIAGNOSIS. — Shell conical with flat sides. Illustrated syntypes 4.8 mm (MNHN-IM-2000-738) and 5.1 mm (MNHN-IM-2000-740) high. Teleoconch of 10.5-11 whorls. Three spiral cords present, the second appearing on the eighth whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of barely visible fine threads. Peristome with additional cords below the second and third spiral cord. Base with three additional spiral cords of which the first developing thin tubercles and the other two smooth. Protoconch incomplete in the

syntypes but of at least 3 whorls with one strong spiral keel and axial riblets. Teleoconch with whitish tubercles on a brown background. Protoconch brown.

Mastonia algens Jousseaume, 1898
(Fig. 37)

Mastonia algens Jousseaume, 1898: 73, not illustrated.

ORIGINAL LOCALITIES. — Aden, Djibouti.

TYPE MATERIAL. — **Syntype**. Djibouti • MNHN-IM-2000-732; 1 specimen.

ORIGINAL DESCRIPTION. — *Testa solida, obesula, elongato-turrita, apice olivaeforme acuminata, nitens, violacea-alba, sparsim pallide fulva, granulis seriebus duobus distantibus suturam obtegentibus ornata, inter costas funiculus fulvus decurrans; anfr. 16-17 primi 4 nigri, sequentes 4 albi, alteri normales, ultimus seriebus granularum quatuor rugatus, ad basim abrupte attenuatus, in portem costa minore cinctus; apertura sub-rotundata, fissa ovalis profunde secta; canalis recurvus.* Long. 8mm; diam. 2mm.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, swollen, turreted-elongated, acute and oval apex, bright, purple-white, scattered in light yellow, adorned by two series of granules distant from each other and hiding the suture, interspaces are characterised by small brown cords; first four spiral cords of whorls 16 and 17 are brown, subsequent four are white, the others are normal, the last whorl is characterised by four granulated spiral cords, abruptly attenuated at the base with a minor spiral cord; roundish aperture, deeply incised with an oval fissure; siphon curved. Length 8 mm; diameter 2 mm.

DIAGNOSIS. — Shell cyrtocooid. Syntype 5.6 mm high. Teleoconch of 11 whorls. Three spiral cords present, the second appearing on the seventh whorl. First and third cords with tubercles at the intersection with orthocline axial ribs. The second initially as a fine thread,

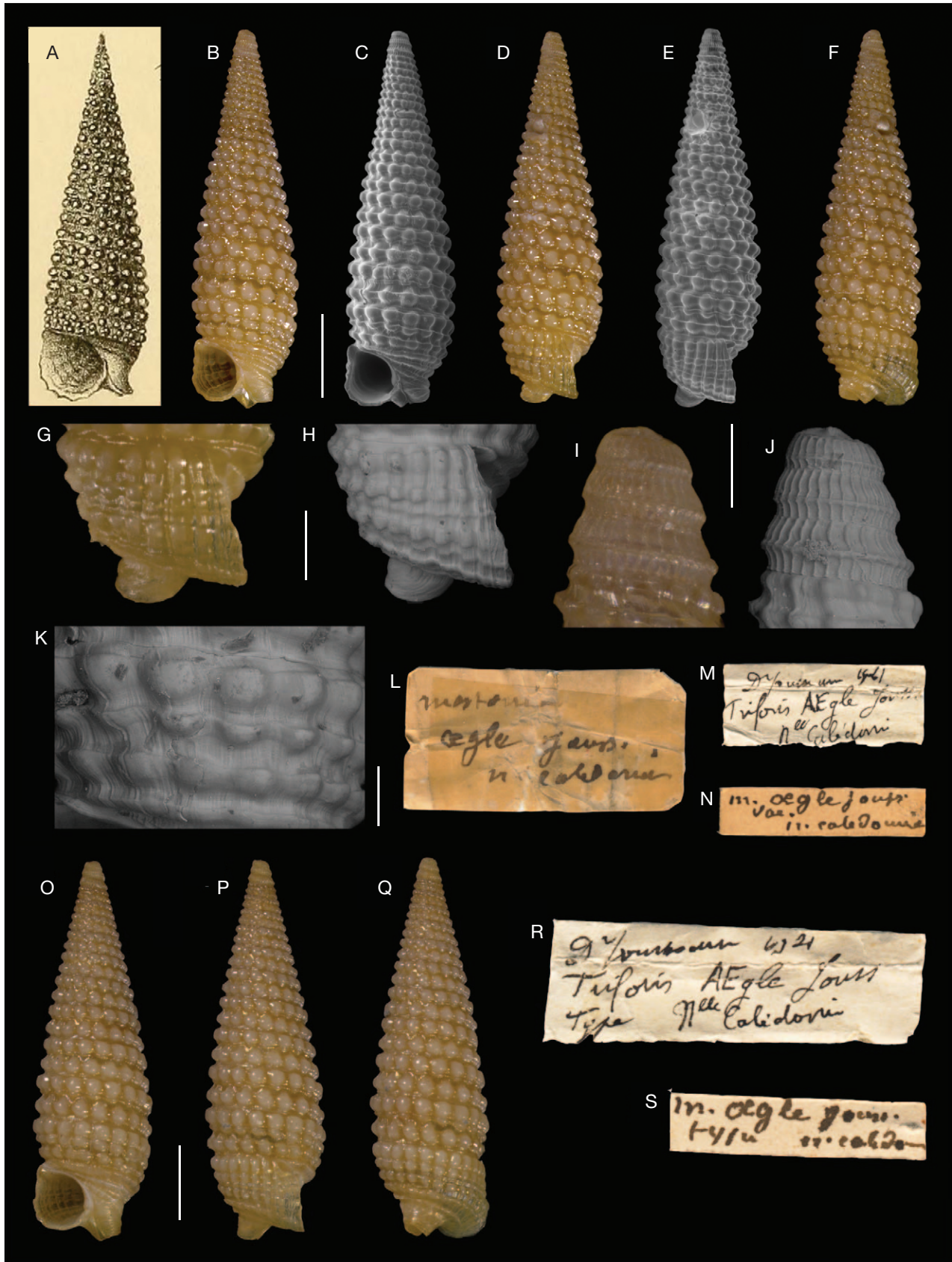


FIG. 36. — *Mastonia aegle* Jousseume, 1884, New Caledonia: **A**, original figure in Jousseume (1884); **B-K**, syntype, MNHN-IM-2000-738: front (**B**, **C**), side (**D**, **E**), back (**F**), peristome (**G**, **H**), protoconch (**I**, **J**), microsculpture (**K**); **L-N**, original labels MNHN-IM-2000-738; **O-Q**, syntype, MNHN-IM-2000-740: front (**O**), side (**P**), back (**Q**); **R**, **S**, original labels MNHN-IM-2000-740. Scale bars: B-F, O-Q, 1 mm; G, H, 0.4 mm; I-K, 0.2 mm.

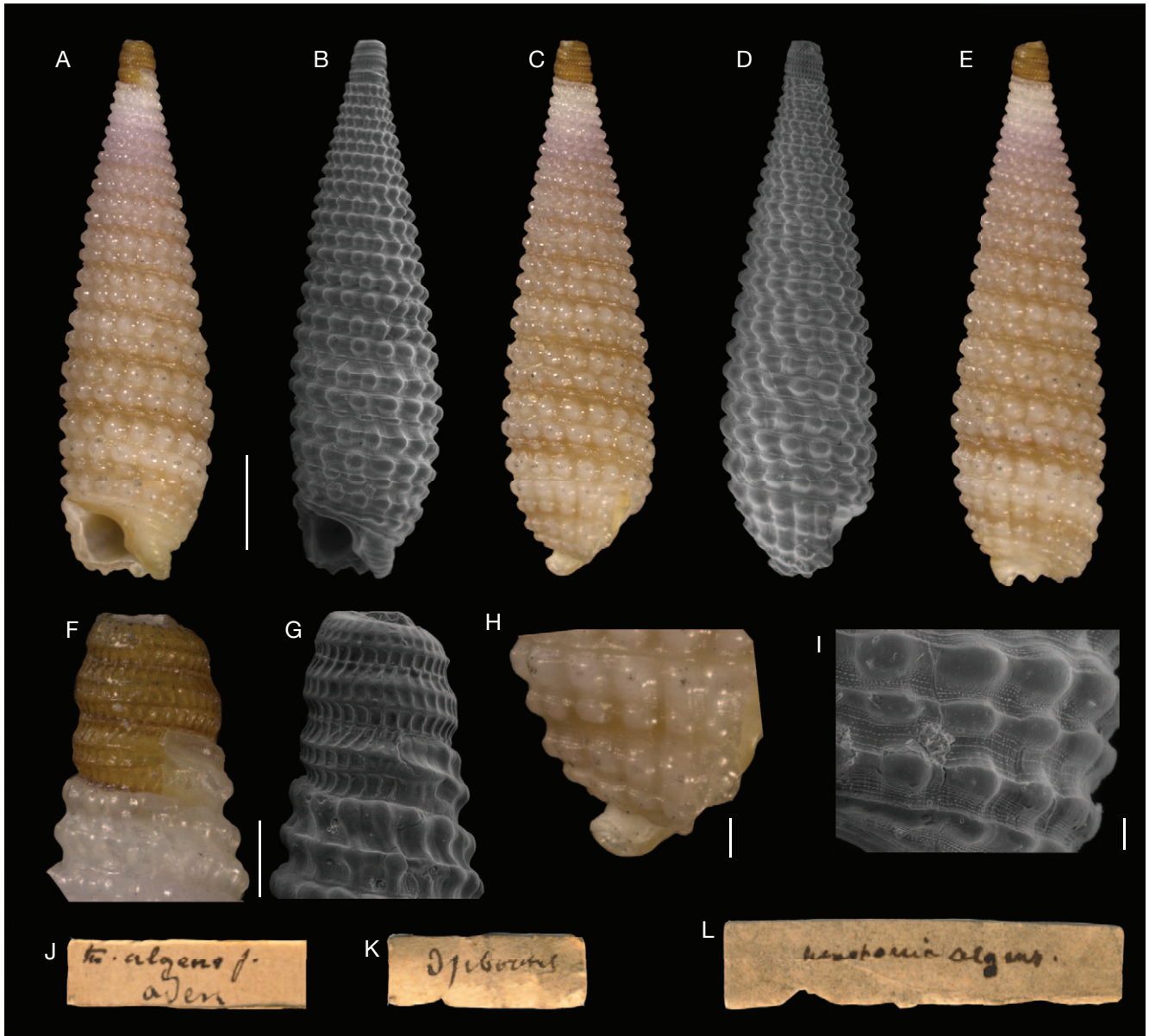


FIG. 37. — *Mastonia algens* Jousseaume, 1898, Djibouti: **A-I**, syntype: MNHN-IM-2000-732: front (**A, B**), side (**C, D**), back (**E**), protoconch (**F, G**), peristome (**H**), microsculpture (**I**); **J-L**, original labels. Scales bar: A-E, 1 mm; F-H, 0.2 mm; I, 0.1 mm.

but later developing thin tubercles. Spiral microsculpture of weakly granulate fine threads in the interspaces between the spiral cords. Base with two additional cords of which the first tubercled and the second developing thin tubercles towards the peristome. Protoconch incomplete in the syntype but clearly multispiral. The visible *c.* 2.5 whorls with two spiral keels and axial riblets. First two teleoconch whorls white, the third and fourth pinkish, remaining teleoconch whorls brownish to light violet with white to light brown tubercles. Darker background between the first and third spiral cords.

Viriola bayani Jousseaume, 1884
(Fig. 38)

Viriola bayani Jousseaume, 1884: 267, pl. 4, fig. 20.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntype**. New Caledonia • MNHN-IM-2000-1388; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa elongato-subulata, solida, gracillima, rufo purpurascens, nitidiuscula; anfractibus persistentibus 23, planis, carinis tribus, laevibus, sat prominentibus, instructis; carinarum interstitiis clathratis; sutura lineari, distincta, filomarginata; ultimo inferne complanato, quinque carinato; apertura rhomboidaea, intus alba, fusco-zonata, lateraliter fissa; canali elongato, recurvo, tenuissime striato.* — Long. 17 millim., lat. 2.7 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Subulate-elongated shell, solid, very slender, purplish red, slightly bright; whorls are constantly 23, flattened, with three smooth and quite prominent spiral cords; cord interspaces are latticed; linear and distinct suture, with a smooth cord at its margin; the last whorl is flattened below, with five spiral cords; rhomboid aperture, internally white, banded with brown,

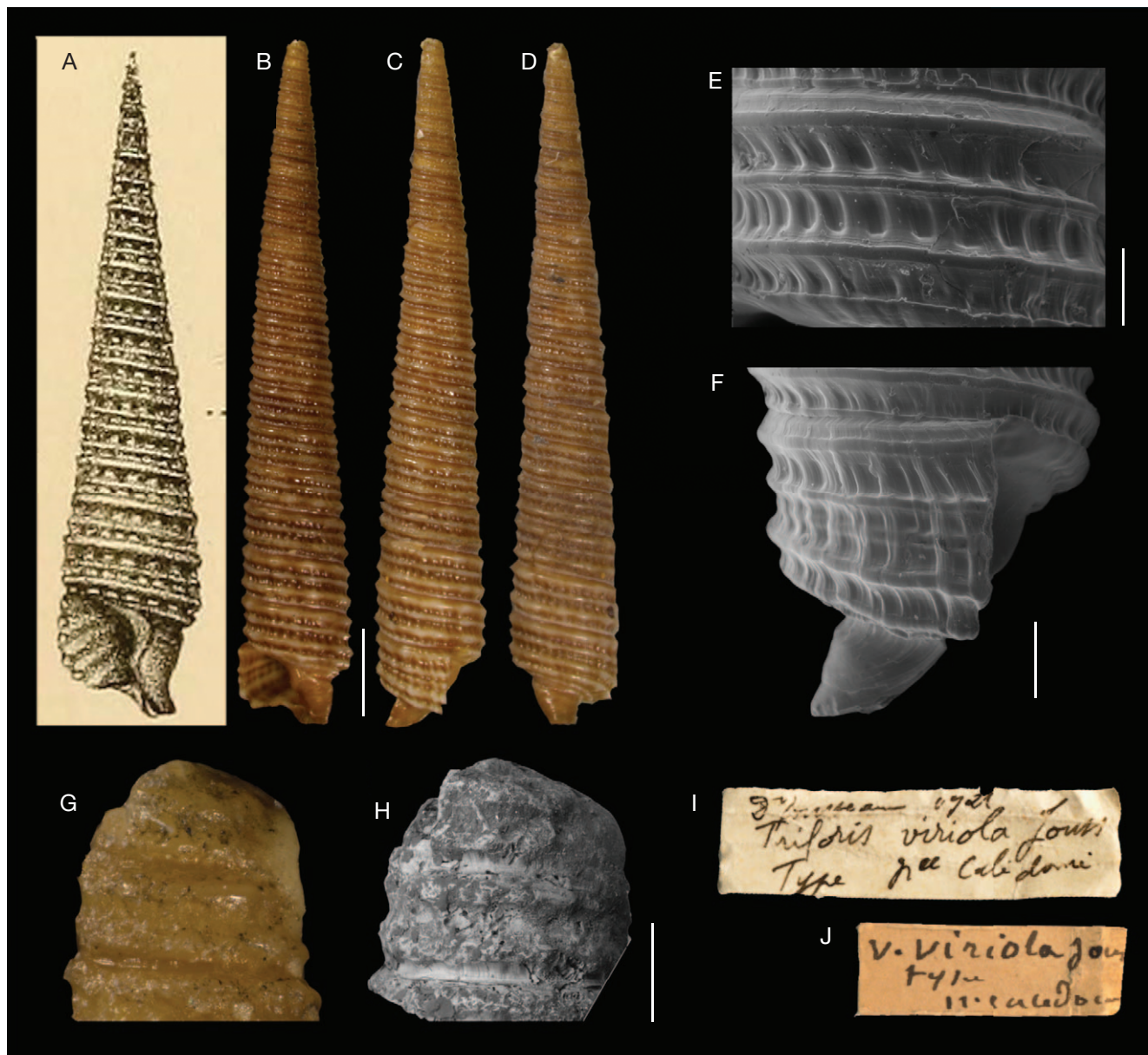


FIG. 38. — *Viriola bayani* Jousseume, 1884, New Caledonia: **A**, original figure in Jousseume (1884); **B-H**, syntype, MNHN-IM-2000-1388; front (**B**), side (**C**), back (**D**), microsculpture (**E**), peristome (**F**), apex (**G, H**); **I, J**, original labels. Scale bars: A-D, 2 mm; E, 0.4 mm; F, 0.5 mm; G, H, 0.2 mm.

laterally fissured; elongated siphon, curved, finely striated. — Length 17 mm, diameter 2.7 mm.

DIAGNOSIS. — Very elongated shell with flat sides. Syntype 16.6 mm high. Teleoconch of *c.* 22 whorls. Three spiral cords present, the second appearing between the fifth and the eighth whorl. All three spiral cords smooth with prosocline axial ribs in the interspaces. Peristome incomplete in the syntype, but with an additional spiral cord below the second spiral cord. Base with two additional smooth spiral cords. Teleoconch brown with white blotches on the spiral cords. Protoconch missing in the syntype.

Inella blainvilli Jousseume, 1884
(Fig. 39)

Inella blainvilli Jousseume, 1884: 244, pl. 4, fig. 6.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntypes.** New Caledonia • MNHN-IM-2000-729; 3 specimens; from type locality.

ORIGINAL DESCRIPTION. — *Testa solidula, pallide cinnamomea elongato-turrita; anfractibus 16-17, regulariter crescentibus (primi cornei, laevigati; sequentes tuberculis in seriebus 3 dispositis, cincti), sutura angusta impressaque separatis; ultimo, carinis 5-ornato; apertura subovata, lateraliter vix fissae; canali brevi, superne unicarinato.* — Long. 4-5, lat. 1-5 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Rather solid shell, turreted-elongated and cinnamon-coloured; from 16 to 17 whorls, regularly growing (first whorls are corneous, smooth; subsequent whorls with

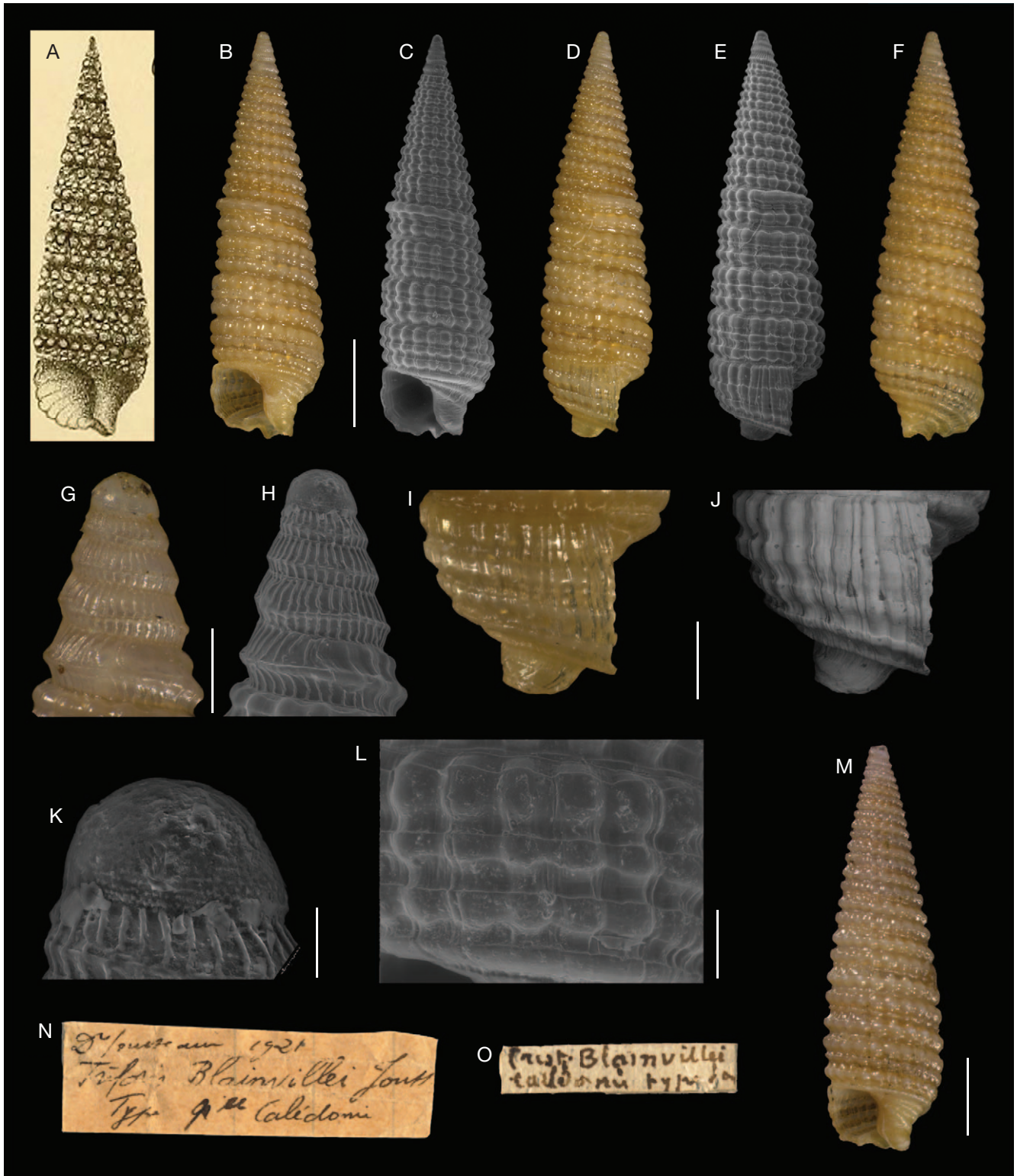


FIG. 39. — *Inella blainvilli* Jousseaume, 1884, New Caledonia: **A**, original figure in Jousseaume (1884); **B-L**, syntype 1, MNHN-IM-2000-729: front (**B**, **C**), side (**D**, **E**), back (**F**), protoconch (**G**, **H**), peristome (**I**, **J**), protoconch (**K**), microsculpture (**L**); **M**, Syntype 2, MNHN-IM-2000-729: front; **N**, **O**, original labels. Scale bars: B-F, M, 1 mm; G, H, L, 0.2 mm; I, J, 0.4 mm; K, 0.1 mm.

three series of tubercles) and separated by a narrow and impressed suture; last whorl with five spiral cords; subovate aperture, laterally barely fissured; short siphon, uncarinated above. — Length 4–5, diameter 1–5 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntypes 5.3 and 5.2 mm high. Teleoconch of 10.5–11 whorls. Three spiral cords present, the second appearing on the sixth whorl. First and second cords with tubercles at the intersection with rather orthocline ribs. Second

cord initially as a fine thread, but later developing thin tubercles. Tubercles broader at the peristome. Peristome with a faint additional spiral cord below the second. Posterior sinus barely visible in the syntypes, whose peristome probably not fully developed. Base with three additional spiral cords of which the first developing flat tubercles, the other two smooth. Multispiral protoconch of 4.5 whorls with one strong spiral keel and axial riblets. The nucleus bears hemispherical granules on the lower half. Protoconch and teleoconch light brown.

Obesula borbonica Jousseaume, 1898
(Fig. 40)

Obesula borbonica Jousseaume, 1898: 75, not illustrated.

ORIGINAL LOCALITIES. — Red Sea, La Réunion.

TYPE MATERIAL. — **Syntypes. La Réunion • MNHN-IM-2000-0728;** 2 specimens.

ORIGINAL DESCRIPTION. — *Testa solida, ovata, ventricosa, apice acuminata, nigro et albo sparsim marmorata; anfr. 13, primi 4 fulvi, sequentes 2 albi, alteri nigricantes, seriebus tuberculorum duobus ornati, tuberculi, aequalis opposita nitentes, series antica saepe albida, postica fulvonigra, sutura profunda canaliculata separati, anticus attenuatus, costis granulosus 5 ad peristomum 6 rugatus; apertura navicularis, lateraliter fissa; canalis brevis, recurvus. Long. 3mm; diam. 1mm3.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, ovate, broad, with an acute apex, marbled with brown and white; 13 whorls separated by a deep canaliculated suture, first four whorls are brown, subsequent two are white, the other whorls are blackish, adorned by two series of equal and bright tubercles, the anterior series is often white, the posterior one is brown-blackish, the anterior (last) whorl is attenuated and characterised by five granulated spiral cords which become six near the aperture; boat-shaped aperture, laterally fissured; short siphon, curved. Length 3 mm; diameter 1.3 mm.

DIAGNOSIS. — Shell pupoid. Syntypes 1.9 and 2.9 mm high. Teleoconch of 6.5 whorls. Two spiral cords present, the first more prominent. Spiral cords with tubercles at the intersections with rather orthocline axial ribs. Spiral microsculpture of weakly granulate fine threads in the interspaces between the spiral cords. Peristome with an additional cord below the first spiral cord. Base with three additional cords of which the first tubercled and the other two smooth. Protoconch almost missing in the syntypes but most likely multispiral; the visible last whorl with two keels and axial riblets. First two teleoconch whorls white, others with pearly tubercles on a brown background. Protoconch brown.

Mastoniaeforis chaperi Jousseaume, 1884
(Fig. 41)

Mastoniaeforis chaperi Jousseaume, 1884: 243, pl. 4, figs 4-5.

TYPE LOCALITY. — La Réunion.

TYPE MATERIAL. — **Syntype. La Réunion • MNHN-IM-2000-478;** 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa solida, fusiformi, alba ad basin lutea; anfractibus 12-14, subregulariter crescentibus (primi laevigati, pallide luteo-tincti, sequentes seriebus tuberculorum biserialiter dispositis ornati), sutura lineari, interstitiis minore, separatis; ultimo valde at-*

tenuato, luteo, seriebus tribus tuberculorum ornato, ad latus sinistrum et prope suturam tubifero; apertura parva, ovata, canali brevi, ascendente, unicarinato, luteo, munita. — Long. 4 millim., lat. 1-5 millim. [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, fusiform, white, yellowish at the base; from 12 to 14 whorls, slightly regularly growing (first whorls are smooth, coloured in light yellow, subsequent whorls are adorned by two series of tubercles) and separated by a linear suture which is narrower than the interspaces; the last whorl is strongly attenuated, yellow, adorned by three series of tubercles, tubular near the suture and on the left side; small aperture, ovate with a short, ascending, unicarinated and yellow siphon. — Length 4 mm, diameter 1-5 mm.

DIAGNOSIS. — Shell cyrtocoid. Syntype 3.9 mm high. Teleoconch of c. 9.5 whorls. Two spiral cords present of which the first becomes more prominent towards the last whorl. Both cords with tubercles at the intersection with prosocline axial ribs. Posterior sinus well developed and protruding into a short canal. Base with two additional spiral cords of which the first tubercled and the second smooth. Teleoconch whorls white, the last whorl and the base brown. Siphonal canal white. Protoconch missing in the syntype.

Mastonia cnodax Jousseaume, 1884
(Fig. 42)

Mastonia cnodax Jousseaume, 1884: 260, pl. 4, fig. 14.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntypes. New Caledonia • MNHN-IM-2000-1613;** 6 specimens; from type locality.

ORIGINAL DESCRIPTION. — *Testa elongato-turrita, solidula, antice perparum ventricosa, lutescente et tuberculis rufis ornata; anfractibus 15 lente irregulariterque crescentibus (primi albi, laevigati, sequentes tuberculorum seriebus duabus, subdistantibus, suturam obtegentibus, exasperati), sutura fere inconspicua separatis; ultimo tuberculorum rufulorum ordinibus tribus, cincto; apertura subovali lateraliter fissa; canali luteo-albo, brevi, recurvo, superne uni-costato. — Long. 6, lat. 1.5 millim.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Turreted-elongated shell, rather solid, anteriorly slightly swollen, yellowish and adorned by red tubercles; whorls are 15, slowly and irregularly growing (first whorls are white, smooth, subsequent ones are characterised by two series of equidistant tubercles and which hide the suture), separated by a generally inconspicuous suture; last whorl with three reddish series of tubercles; subovate and laterally fissured aperture; yellow-white siphon, short, curved, above with one spiral cord. — Length 6, diameter 1.5 mm.

DIAGNOSIS. — Shell cyrtocoid. Syntypes 6.3 mm and 6.6 mm high. Teleoconch of 11-12 whorls. Three spiral cords present, the second appearing on the eleventh whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Peristome with additional cords below the second and third spiral cord. Posterior sinus shallow. Base with three additional spiral cords of which the first with thin tubercles and the other two smooth. Protoconch incomplete in the syntypes but clearly multispiral with one strong spiral keel and axial riblets on the lower whorls. Teleoconch with brown tubercles on a whitish background, the brown colour of the tubercles becoming more intense towards the lower whorls. Protoconch light brown.

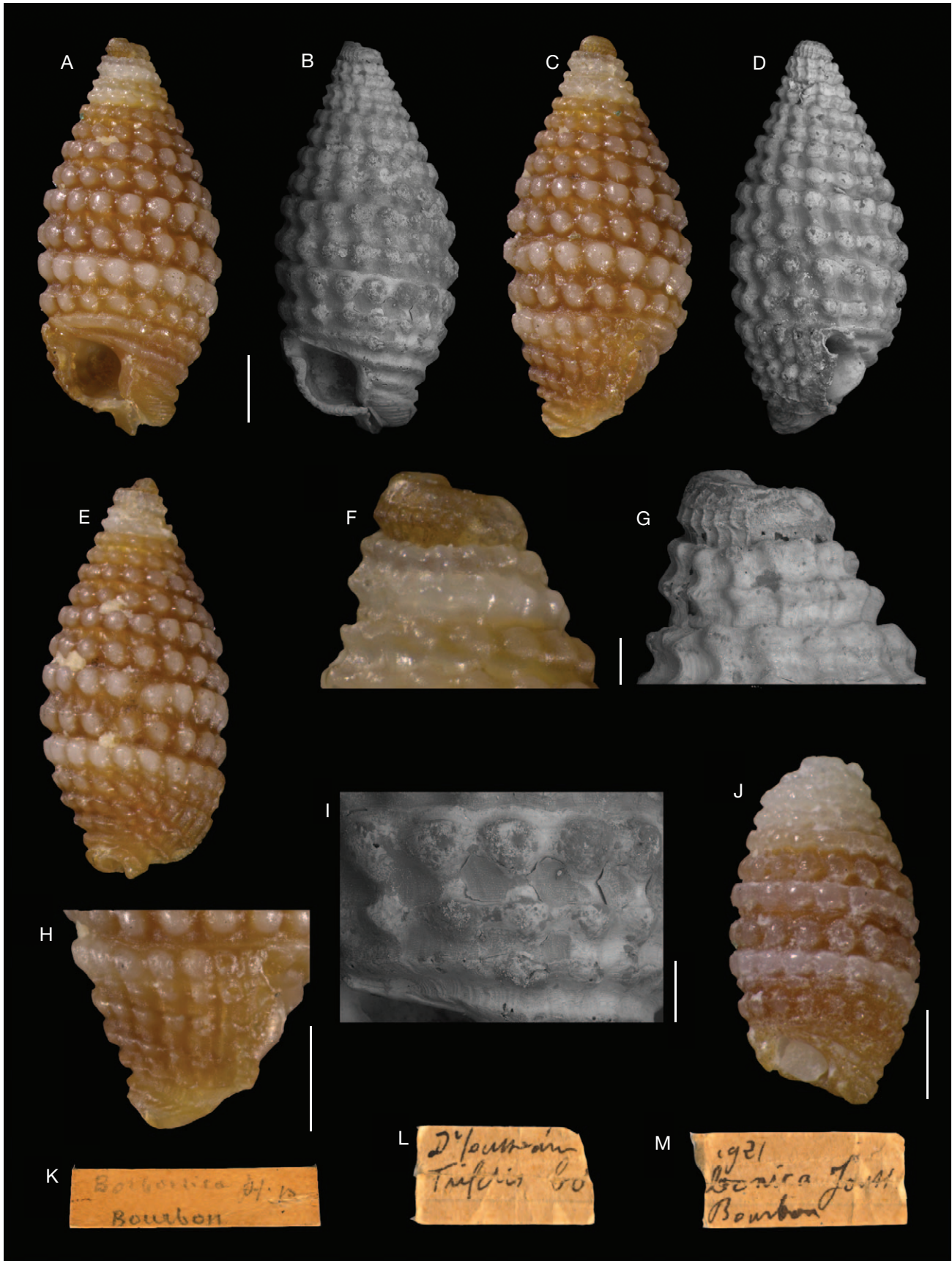


FIG. 40. — *Obesula borbonica* Jousseaume, 1898, La Réunion: **A-I**, syntype 1, MNHN-IM-0728; front (**A**, **B**), side (**C**, **D**), back (**E**), apex (**F**, **G**), peristome (**H**), microsculpture (**I**); **L**, syntype 2, MNHN-IM-2000-0728, front; **M-O**, original labels. Scale bars: A-E, H, L, 0.5 mm; I, 0.2 mm; F, G, 0.1 mm.

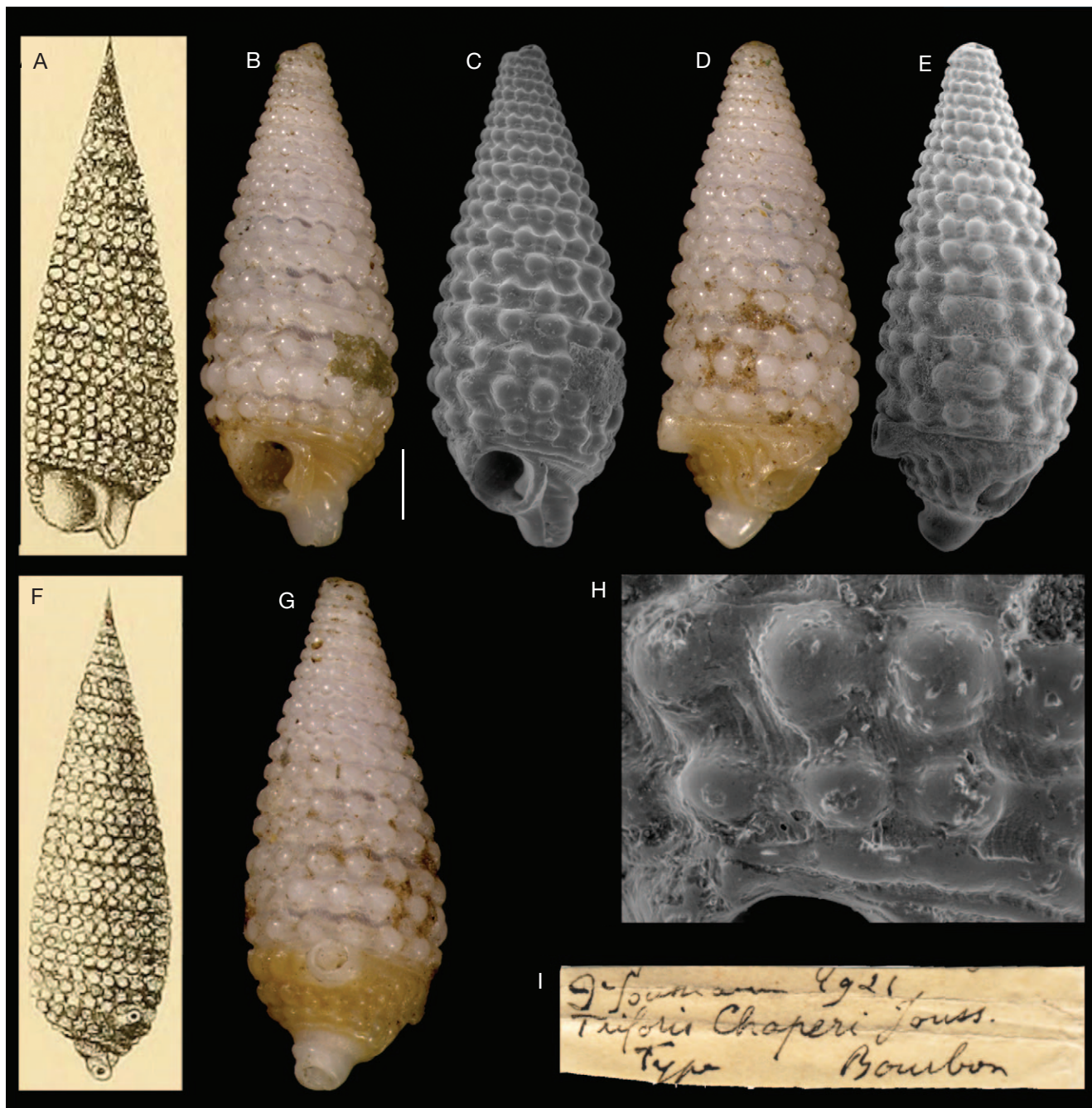


FIG. 41. — *Mastoniaeforis chaperi* Jousseaume, 1884, La Réunion: **A, F**, original figures in Jousseaume (1884); **B-E, G, H**, syntype, MNHN-IM-2000-478: front (**B, C**), side (**D, E**), back (**G**), microsculpture (**H**); **I**, original label. Scale bars: B-E, G, 0.5 mm; H, 0.2 mm.

Euthymia colzumensis Jousseaume, 1898
(Fig. 43)

Euthymia colzumensis Jousseaume, 1898: 77, not illustrated.

ORIGINAL LOCALITIES. — Suez, Djibouti.

TYPE MATERIAL. — **Syntypes**. **Egypt** • MNHN-IM-2000-724; 3 specimens; Suez • MNHN-IM-2000-725; 10 specimens; Suez.

ORIGINAL DESCRIPTION. — *Testa solida pyramidale-elongata, pallide fulva, spiraliter tricostrata, granulae costarum oblongae oppositae seriebus longitudinalibus dispositae; anfr. 13-14 regulariter crescenti,*

sutura canaliculata separati, primi albi sequentes antice alba postice pallidefulvo zonati, ultimus ad basim attenuatus, costis granulosus quinque rugatus; apertura subrotundata lateraliter fissis; canalis elongatus, retrorsum recurvusatus. Long. 7mm; diam. 1mm.
[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid and pyramidal-elongated shell, light brown, with three spiral cords, the granules of the spiral cords are oblong and arranged in opposed longitudinal series; from 13 to 14 regularly growing whorls, separated by a canaliculated suture, the first whorls are banded with white, subsequent ones are banded with white anteriorly and with light brown posteriorly, the last whorl is attenuated near the base and

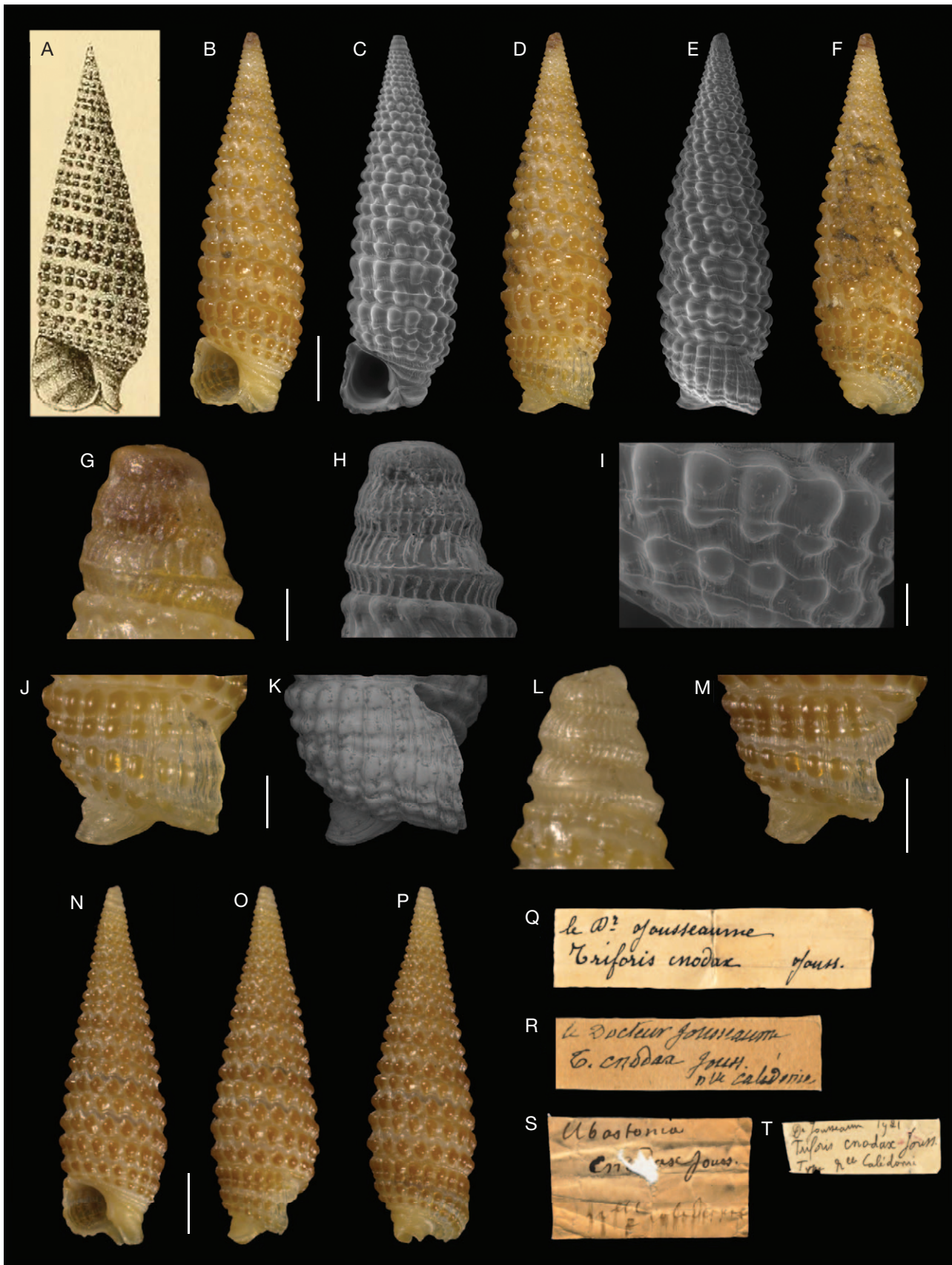


FIG. 42. — *Mastonia cnodax* Jousseume, 1884, New Caledonia: **A**, original figure in Jousseume (1884); **B-K**, syntype 1, MNHN-IM-2000-1613; front (**B**, **C**), side (**D**, **E**), back (**F**), protoconch (**G**, **H**), microsculpture (**I**), peristome (**J**, **K**); **L-P**, syntype 2, MNHN-IM-2000-1613; apex (**L**), peristome (**M**), front (**N**), side (**O**), back (**P**); **Q-T**, original labels. Scale bars: B-F, N-P, 1 mm; G, H, 0.1 mm; I, L, 0.2 mm; J, K, M, 0.4 mm.

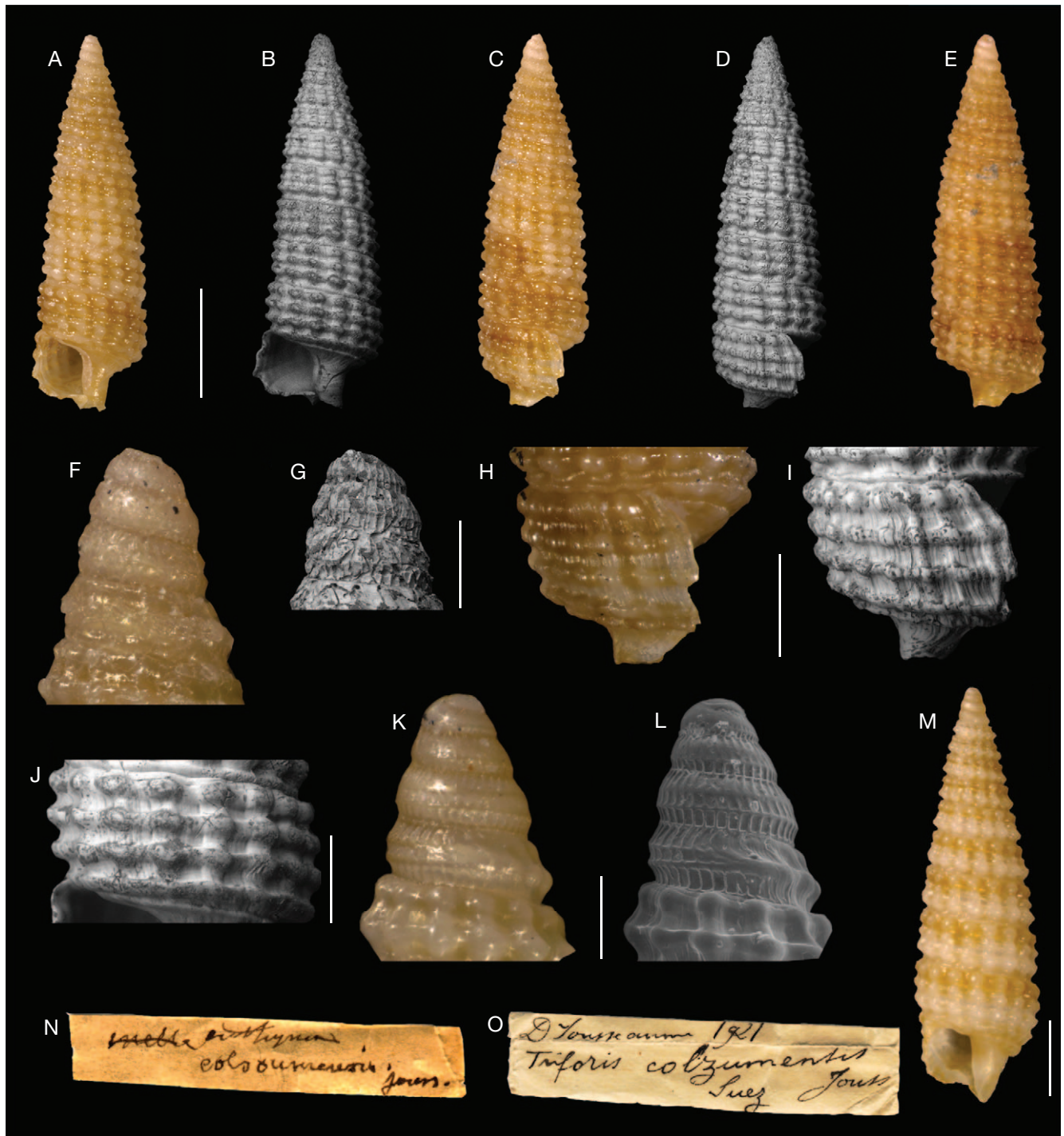


FIG. 43. — *Euthymella colzumensis* (Jousseaume, 1898), Suez, Egypt: **A-J**, syntype 1, MNHN-IM-2000-724: front (**A, B**), side (**C, D**), back (**E**), protoconch (**F, G**), peristome (**H, I**), aperture (**J**); **K-M**, syntype 1, MNHN-IM-2000-724: apex (**K, L**), front (**M**); **N, O**, original labels of MNHN-IM-2000-724. Scale bars: A-E, M, 1 mm; F, G, K, L, 0.2 mm; H-J, 0.5 mm.

characterized by five granulated spiral cords; roundish and laterally fissured aperture; elongated siphon, curved backwards. Length 7 mm; diameter 1.7 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntypes 5.0 and 5.4 mm high. Teleoconch of 9 whorls. Three spiral cords present, the second appearing on the third whorl. First and second cords with tubercles at the intersection with rather orthocline

ribs. Second cord with thin tubercles becoming large on the lower whorls. Peristome without additional cords. Posterior sinus shallow. Base with two additional spiral cords of which the first with thin tubercles, the other smooth. Multispiral protoconch of four whorls with two spiral keels and axial riblets. Teleoconch with light brown to white tubercles on a brown background; the second and third cords occasionally with a lighter background. Protoconch light brown.

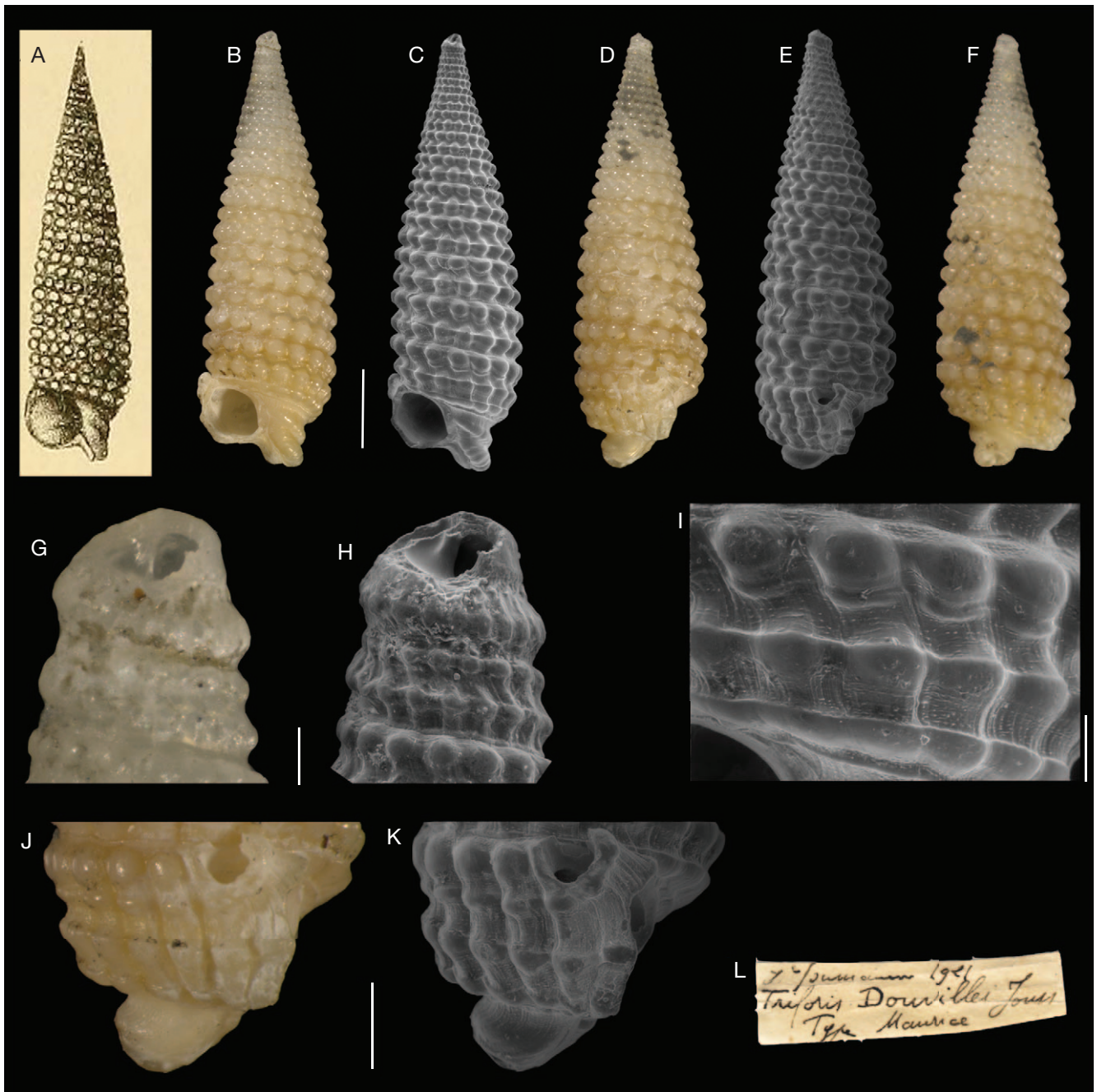


FIG. 44. — *Iniforis douvillei* Jousseume, 1884, Mauritius: **A**, original figure in Jousseume (1884); **B-K**, Holotype, MNHN-IM-2000-716: front (**B**, **C**), side (**D**, **E**), back (**F**), apex (**G**, **H**), microsculpture (**I**), peristome (**J**, **K**); **L**, original label. Scale bars: A-F, 1 mm; G, H, 0.1 mm; I, 0.2 mm; J, K, 0.4 mm.

Iniforis douvillei Jousseume, 1884
(Fig. 44)

Iniforis douvillei Jousseume, 1884: 241, pl. 4, fig. 3 (fixed by monotypy).

TYPE LOCALITY. — Mauritius.

TYPE MATERIAL. — **Holotype** • Mauritius; MNHN-IM-2000-716, Mauritius.

ORIGINAL DESCRIPTION. — *Testa solida, luteo-alba, elongato-turrita, antice perparum tumida; anfractibus 15 (primi laevigati, nitidi, albi; sequentes tuberculis biseriatis dispositis, ornati), sutura vix distincta separatis; ultimo carinis tribus moniliformibus cincto, ad suturam pone insertionem marginis externae tubifero; apertura subrotundata, lateraliter fissa, superne canali recurvo, unicostato, munita.* — Long. 6, lat. 1-5 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, yellow-white, turreted-elongated, anteriorly very little swollen; 15 whorls (first whorls are smooth, bright, white; subsequent whorls are adorned

by two series of tubercles), separated by a barely distinct suture; last whorl with three tubercled cords, tubular behind the insertion of the external margin near the suture; roundish aperture, laterally fissured, above with a curved and unicarinated siphon. — Length 6, diameter 1–5 mm.

DIAGNOSIS. — Shell conical with flat sides. Holotype 5.9 mm high. Teleoconch of 12 whorls. Three spiral cords present, the second only visible on the last whorl. First and third cords with tubercles at the intersection with prosocline axial ribs. Second cord initially as a fine thread and developing thin tubercles towards the peristome. Spiral microsculpture of weakly granulate fine threads. Posterior sinus deep developing into a short tube. Base with three additional spiral cords of which the first tubercled, the second weak and smooth, the third smooth. Protoconch badly broken in the holotype, but apparently paucispiral with a row of large tubercles. Teleoconch whorls on the upper half white, the lower half light brown. Protoconch white.

Mastonia ducosensis Jousseaume, 1884
(Fig. 45)

Mastonia ducosensis Jousseaume, 1884: 251, pl. 4, fig. 10.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntypes.** New Caledonia • MNHN-IM-2000-715; 7 specimens; from type locality.

ORIGINAL DESCRIPTION. — *Testa elongato-turrita, violacea, antice perparum ventricosa; anfractibus 20 (primi laevigati, sequentes tuberculis biseriatim dispositis, ornati), sutura tuberculos obtegentibus, separatis; ultimo subcarinato, costis moniliferis quinque, ornato; apertura ovata, lateraliter profunde fissa, fissura ovata; canali subelongato, recurvo, superne oblique striato.*

Varietas major, long. 11, lat. 7 millim.

Varietas minor, long. 7, lat. 2 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Turreted-elongated shell, purplish, anteriorly very little swollen; whorls are 20 (the first whorls are smooth, the following are adorned by two series of tubercles), separated by a suture hidden by the tubercles; the last whorl is slightly carinated, adorned by five granulated spiral cords; ovate aperture, laterally deeply fissured, the fissure is ovate; slightly elongated siphon, curved, above obliquely striated.

Varietas major, length 11, diameter 7 mm.

Varietas minor, length 7, diameter 2 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntypes 8.9 and 10.5 mm high. Teleoconch of *c.* 15 whorls. Three spiral cords present, the second appearing on the ninth whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of weakly granulate fine threads. Peristome with an additional spiral cord below the second and third spiral cords. Posterior sinus deep. Base with two additional spiral cords of which the first with tubercles, the second smooth. Teleoconch light violet with yellow tubercles on the third spiral cord. Protoconch missing in the syntypes.

Mastonia funebris Jousseaume, 1884
(Figs 46; 47)

Mastonia funebris Jousseaume, 1884: 262, pl. 4, fig. 15.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Lectotype.** New Caledonia • MNHN-IM-2000-29261; here designated.

Paralectotypes. New Caledonia • MNHN-IM-2000-490; 6 specimens; from type locality • Triphoridae sp., MNHN-IM-2000-29262; 1 specimen.

ORIGINAL DESCRIPTION. — *Testa elongato-turrita, solida, zonula nigra altera que alba cincta, antice perparum tumida; anfractibus 15 regulariter crescentibus (primi laevigati, albi, sequentes tuberculis biseriatim dispositis, ornati [tuberculorum series prima nigra, postica alba], sutura vix distincta discretis; ultimo costis moniliformibus quinque munito, quarum 4 nigris et altera alba; apertura subovata, dilatata, intus lineis albis et nigris picta, lateraliter fissa, canali brevi, recurvo nigroque munita.* — Long. 4–6, lat. 1.2–1.5 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Turreted-elongated shell, solid, characterised by white and brown small bands, anteriorly very little swollen; 15 regularly growing whorls (the first whorls are smooth, white, subsequent whorls are adorned by two series of tubercles [the first series of tubercles is brown, the following one is white], separated by a barely distinct suture; last whorl with five tubercled spiral cords, four cords are brown and the other one is white; subovate aperture, expanded, internally coloured with white and brown lines, laterally fissured, with a short, curved and brownish siphon. — Length 4–6, diameter 1.2–1.5 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntype 3.7 mm high. Teleoconch of 10 whorls. Three spiral cords present, the second appearing on the eighth whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of barely visible fine threads. Peristome without additional spiral cords. Posterior sinus shallow. Base with two additional spiral cords of which the first with tubercles, the second smooth. Multispiral protoconch of 4.5 whorls with two spiral keels and equally strong axial riblets. Nucleus with hemispheric granules. Teleoconch brown, with the first spiral cord white. Protoconch brown.

REMARKS. — *Mastonia funebris* is characterized by the colour pattern of a white first spiral cord on a brown background (“le rang antérieur est d’un noir plus ou moins foncé, le postérieur d’un blanc de porcelaine”). One specimen of the type series (Fig. 47) does not fit this description as it has a brown background again, but with a slightly darker first spiral cord. Additionally, its protoconch bears a single spiral keel on its lower whorls, whereas *M. funebris* bears two. Therefore, to stabilize the nomenclature, we designate here the lectotype of *M. funebris* (Fig. 46).

Mastonia iniqua Jousseaume, 1898
(Fig. 48)

Mastonia iniqua Jousseaume, 1898: 75, not illustrated.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Lectotype.** New Caledonia • MNHN-IM-2000-1175, designated by Marshall (1983).

Paralectotype. New Caledonia • MNHN-IM-2000-1264; 1 specimen.

ORIGINAL DESCRIPTION. — *Testa solidula, elongata, turrita, alba spiraliter nigro cincta; antice parum tumida; anfr. 13–14 regulariter*

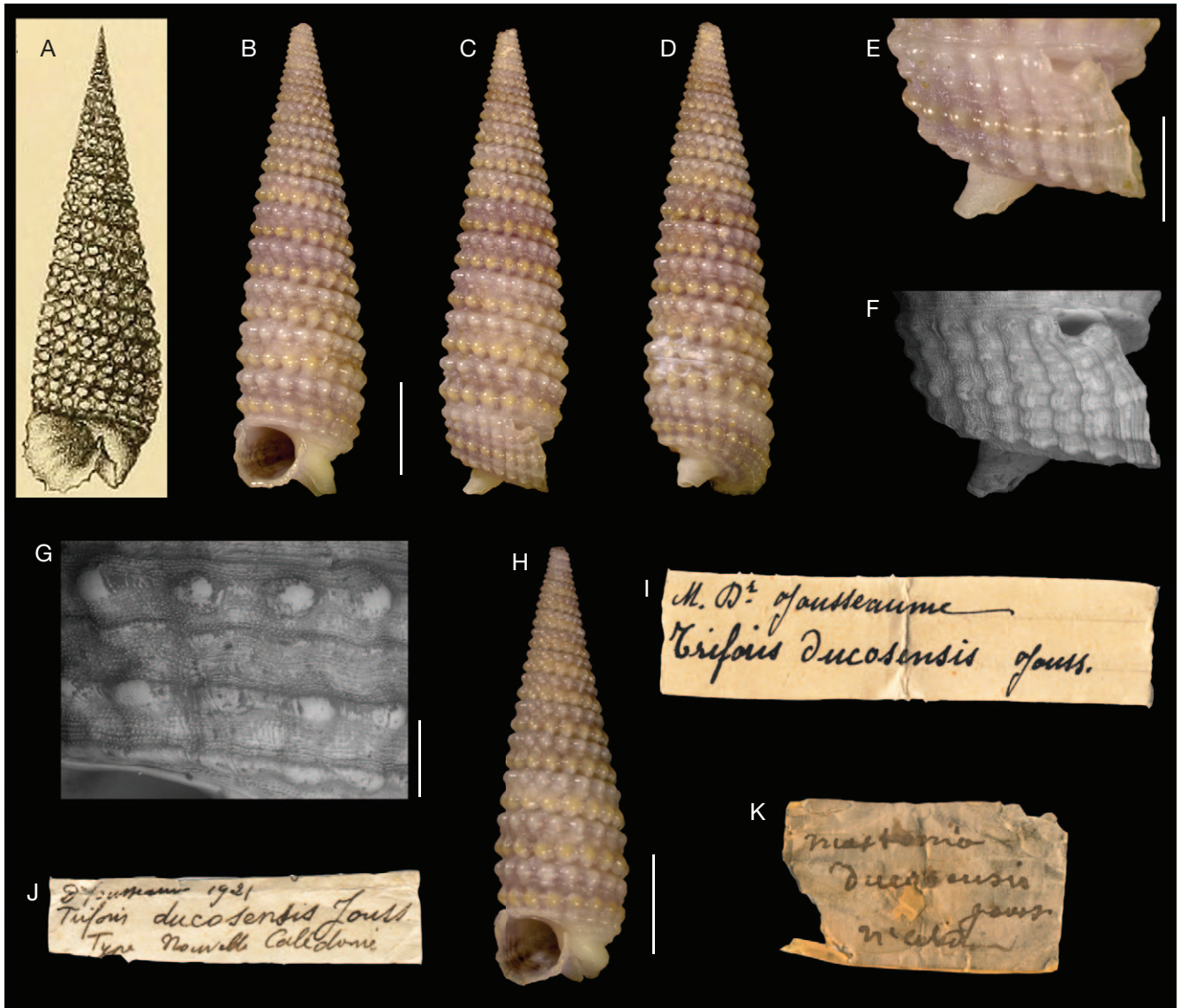


FIG. 45. — *Mastonia ducosensis* Jousseaume, 1884, New Caledonia: **A**, original figure in Jousseaume (1884); **B-G**, syntype 1, MNHN-IM-2000-715: front (**B**), side (**C**), back (**D**), peristome (**E**, **F**), microsculpture (**G**); **H**, Syntype 2, MNHN-IM-2000-715: front; **I-K**, original labels. Scale bars: B-D, H, 2 mm; E, F, 0.5 mm; G, 0.4 mm.

crescenti, primi albi laevigati, sequentes tuberculis nitentibus triseriis dispositis ornati, series postica forstior nigro tincta, alterae 2 albae, ultimus costis moniliformibus quinque rugatus, quorum anticae 2 nigrae intertio-albo divisae, medianae 2 albae, postica nigra; apertura subovalis lineis nigris 2-3 zonata, lateraliter fissis, canalis brevis apice nigro maculatus. Long. 4mm5; diam. 1mm2.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Slightly solid shell, elongated, turreted, with white and brown spiral cords; anteriorly slightly swollen; from 13 to 14 regularly growing whorls, first whorls are smooth and white, subsequent whorls are adorned by three series of bright tubercles, the posterior series is coloured in brown, the other two in white, the last whorl is characterised by five tubercled spiral cords of which the two anterior brown cords are separated by two median white cords, the posterior cord is brown; subovate aperture banded with 2-3 brown lines, laterally fissured, short siphon spotted in brown. Length 4.5 mm; diameter 1.2 mm.

DIAGNOSIS. — Shell cyrtconoid. Lectotype 4.5 mm high, paralectotype 2.9 mm high. Teleoconch of 7-9 whorls. Three spiral cords present, the second appearing on the fifth whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord initially with thin tubercles later becoming larger. Spiral microsculpture of barely visible fine threads. Peristome without additional spiral cords. Posterior sinus shallow. Base with three additional spiral cords, the first and second with tubercles, the third smooth. Multispiral protoconch of 4.5 whorls with one spiral keel and equally strong axial riblets. Teleoconch white with the first spiral cord and the two spiral cords on the base brown. Tip of the siphonal canal brown. Protoconch white.

Mastonia interpictus Jousseaume, 1898
(Fig. 49)

Mastonia interpictus Jousseaume, 1898: 74, not illustrated.

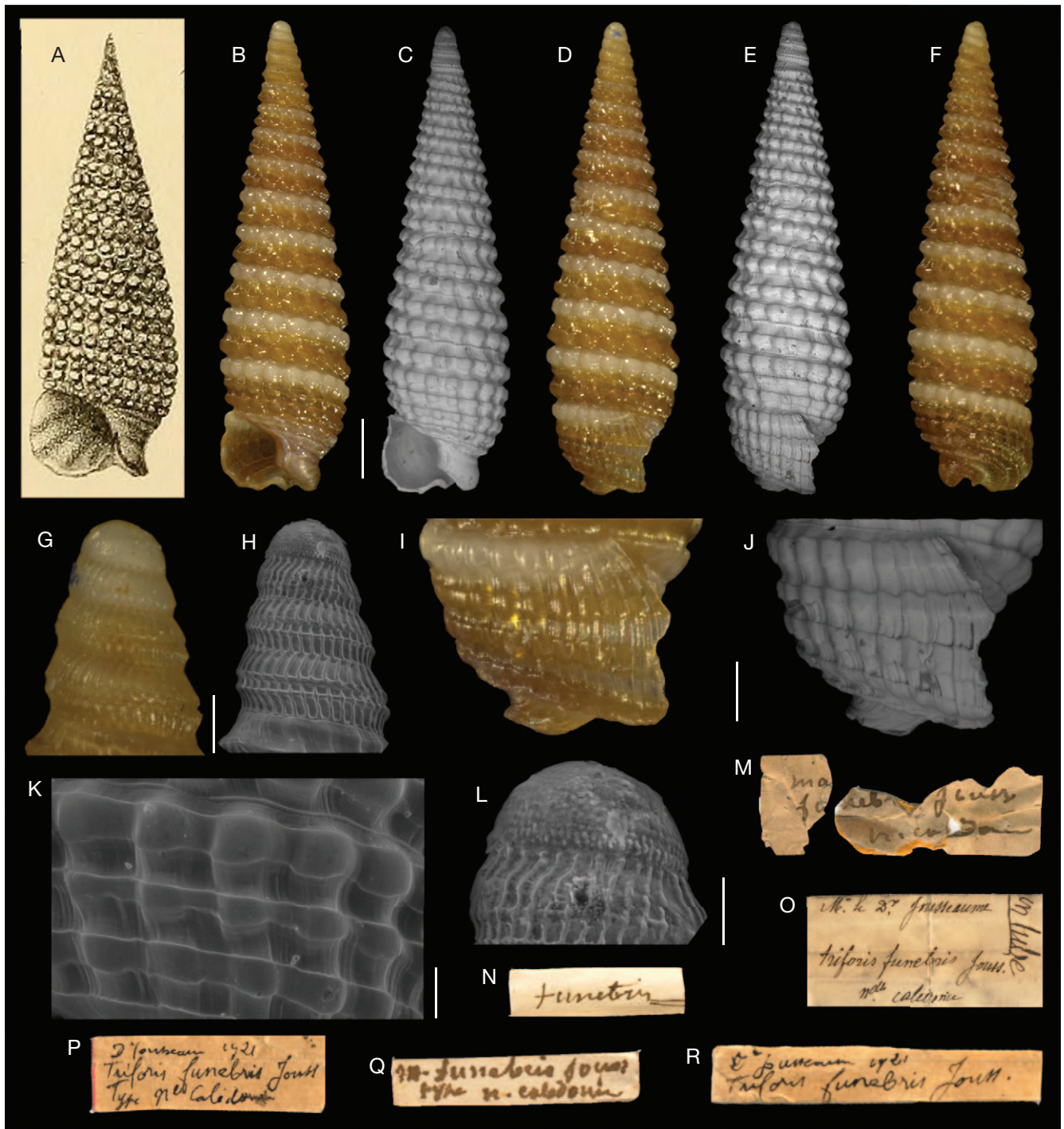


FIG. 46. — *Mastonia funebris* Jousseume, 1884, New Caledonia: **A**, original figure in Jousseume (1884); **B-L**, lectotype, MNHN-IM-2000-29261; front (**B, C**), side (**D, E**), back (**F**), protoconch (**G, H**), peristome (**I, J**), microsculpture (**K**), first protoconch whorl (**L**); **M-R**, original labels. Scale bars: B-F, 0.5 mm; G-J, 0.2 mm; K, 0.1 mm; L, 0.05 mm.

ORIGINAL LOCALITIES. — Djibouti, La Réunion.

TYPE MATERIAL. — **Syntype**. Reunion island • MNHN-IM-2000-1575; 1 specimen; La Réunion.

ADDITIONAL MATERIAL. — **Reunion island** • MNHN-IM-2012-36199; 1 specimen; *Mastonia* sp. (*M. inter pictus* sensu Jay, 2007).

ORIGINAL DESCRIPTION. — *Testa solida, ovato-turrita, apice alba acuminata, cinereo-alba, fulvo picta; anfr. 14 plani sutura lata separati,*

transversim duplici serie granularum cincti, granulae alternantes aequales albae, intervalles castaneo-fusco punctati, ultimus seriebus granularum quinque majores 3 inter picturati, alteri 2 minores unicolores rugatus; apertura rotundata, peristomum postice profunde fissa, canalis brevis retrorsum curvatus. Long. 5mm; diam. 1mm5.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, turreted-ovate with a sharp white apex and coloured in greyish-white and yellow;

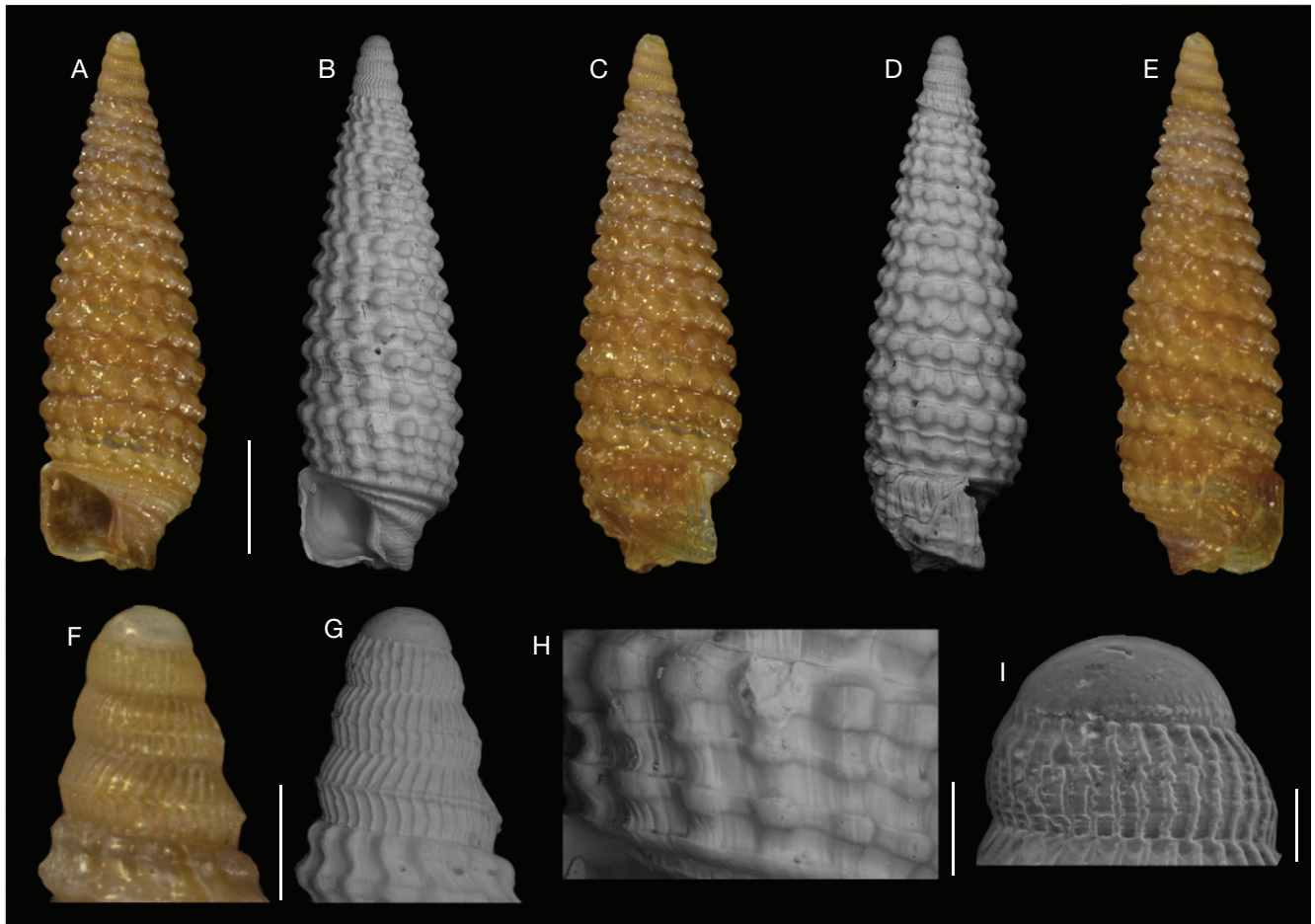


FIG. 47. — Triphoridae indet. (not *Mastonia funebris* Jousseaume, 1884), New Caledonia, MNHN-IM-2000-29262; front (A, B), side (C, D), back (E), protoconch (F, G), microsculpture (H), first protoconch whorl (I). Scale bars: A-E, 0.5 mm; F-H, 0.2 mm; I, 0.05 mm.

14 flattened whorls separated by a large suture, with two series of granules, which are white, alternating and equal, interspaces are adorned by dark brown spots, of the last series of five granules the three wider series are coloured in the interspaces, the two other smaller series are monochrome; rounded aperture, peristome posteriorly deeply fissured, the siphon is short and curved backwards. Length 5 mm; diameter 1.5 mm.

DIAGNOSIS. — Shell slightly cyrtconoid. Syntype 4.9 mm high. Teleoconch of *c.* 9 whorls. Two spiral cords present. A spiral thread present below the first spiral cord on the last whorl. A fine thread present suprasuturally. Both spiral cords with tubercles at the intersection with prosocline axial ribs. Spiral microsculpture of numerous fine threads. Base with two additional spiral cords of which the first with tubercles, the second smooth. First two teleoconch whorls white, other whorls brown with darker interspaces between the tubercles. Protoconch missing in the syntype.

REMARKS. — The *M. interpietus* illustrated by Jay (2007) in figures 34-36 and 57 does not fit the type specimen: it is broader and more pyriform, it has a more developed, albeit small, second spiral cord, and it has multiple minute spiral cords which form a cancellate sculpture at the intersection with growth lines. The colouration is also different: *M. interpietus* is whitish with brown interspaces between nodules. Jay's figure 57 shows a shell with whitish background but irregular brown blotches on the whorls that cover also the tubercles.

Mastonia issa Jousseaume, 1898
(Fig. 50)

Mastonia issa Jousseaume, 1898: 74, not illustrated.

TYPE LOCALITY. — Djibouti.

TYPE MATERIAL. — **Lectotype.** Djibouti • MNHN-IM-2000-29263; 1 specimen; here designated.

Paralectotype. Djibouti • Triphoridae indet.: MNHN-IM-2000-707; 1 paralectotype.

ORIGINAL DESCRIPTION. — *Testa solidula, pyramidalis, elongata, subulata, alba et pallide fulvo zonata; anfr. 16 regulariter crescenti, primi apice olivaeforme instituentes, sequentes carinis granulosis tribus (media minor), cincti, granulae oppositae in seriebus longitudinalibus dispositae, costa postice alba, altera luteo-fulva; sutura canaliculata fusca, anfractus ultimus antice attenuatus, carinis moniliferis quinque ornatus; apertura subrotundata lateraliter fissa, canal is parum recurvus. Long. 4mm; diam. 1mm.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Rather solid shell, pyramidal, elongated, subulate, with yellow and white bands; 16 regularly growing whorls, first whorls forming an olive-shaped apex, subsequent with three granulated spiral cords (the one in the middle is smaller), the opposing granules are arranged in longitudinal series,

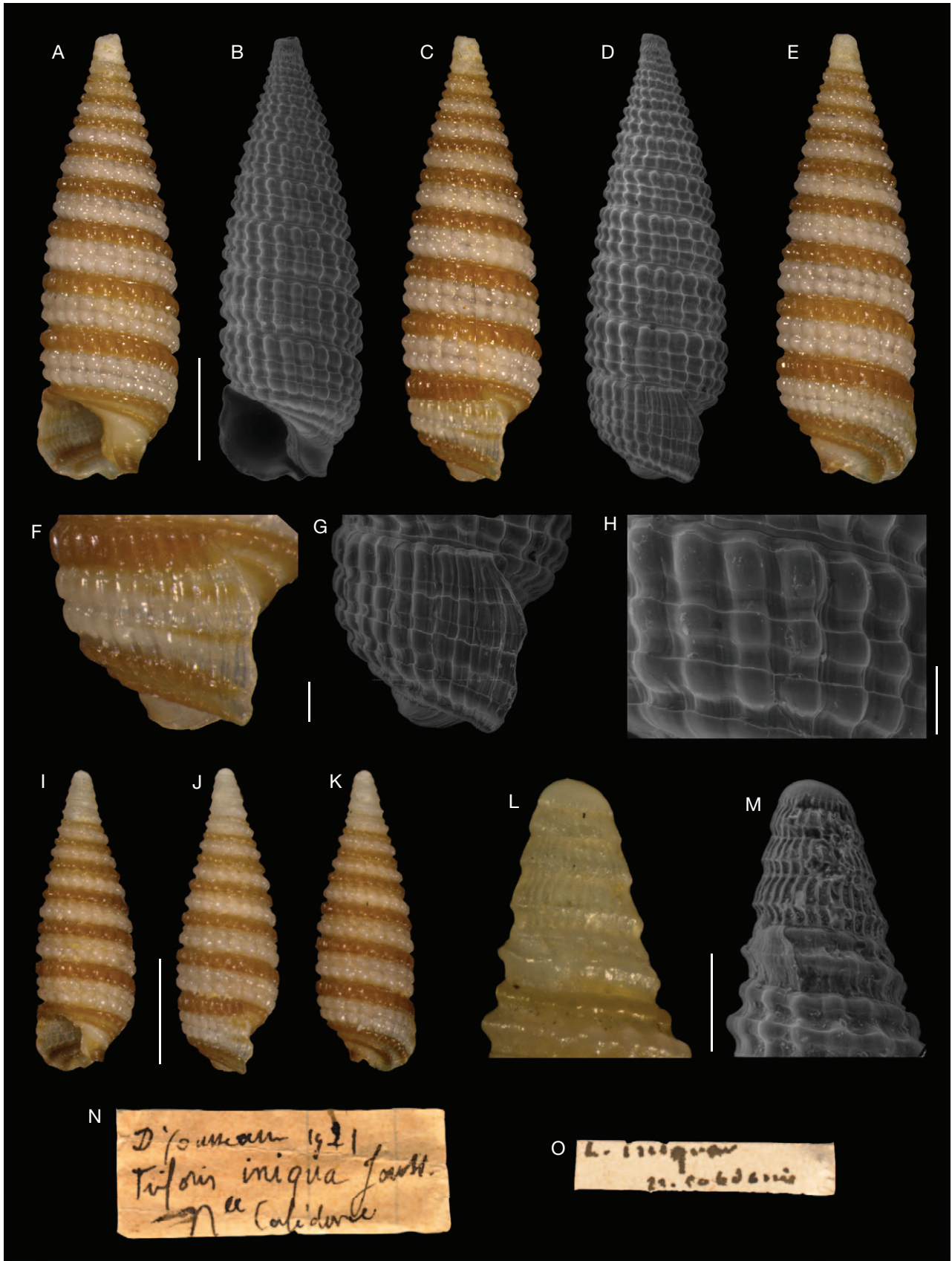


FIG. 48. — *Mastonia iniqua* Jousseaume, 1898, New Caledonia: **A-H**, lectotype, MNHN-IM-2000-1175; front (**A**, **B**), side (**C**, **D**), back (**E**), peristome (**F**, **G**), micro-sculpture (**H**); **I-M**, paralectotype, MNHN-IM-2000-1264; front (**I**), side (**J**), back (**K**), apex (**L**, **M**); **N**, **O**, original labels lot MNHN-IM-2000-1175. Scale bars: A-E, I-K, 1 mm; F-H, L, M, 0.2 mm.

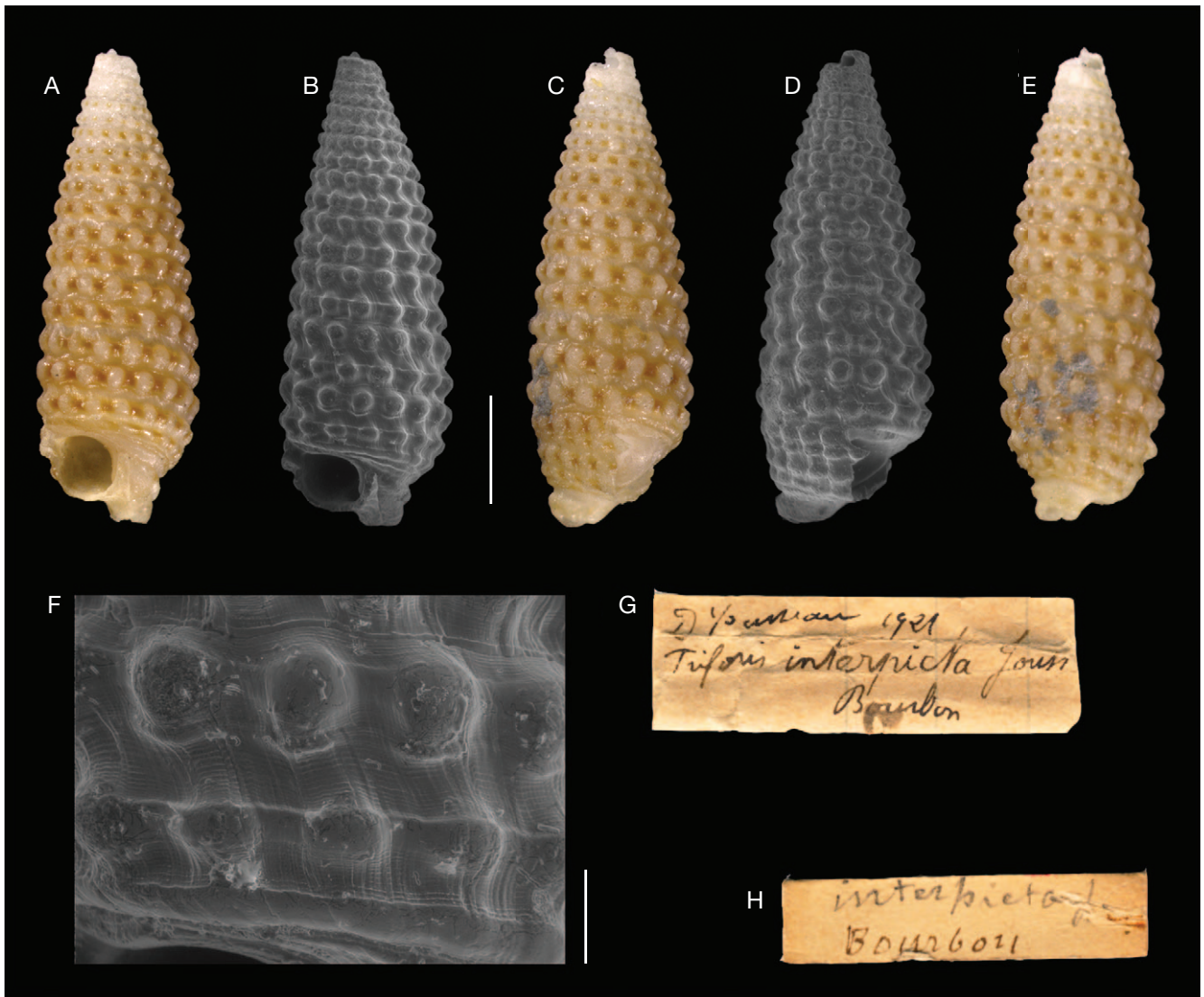


FIG. 49. — *Mastonia interpietis* Jousseaume, 1898, La Réunion; MNHN-IM-2000-1575: front (A, B), side (C, D), back (E), microsculpture (F); G, H, original labels. Scale bars: A-E, 1 mm; F, 0.2 mm.

the posterior cord is white, others are dark yellow; brown canalliculated suture, the last whorl is posteriorly flattened, adorned by five granular spiral cords; roundish and laterally fissured aperture, slightly curved siphon. Length 4 mm; diameter 1 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntype 5.3 mm high. Teleoconch of 10 whorls. Three spiral cords present, the second appearing on the fifth whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord with flat tubercles becoming larger at the lower whorls. Peristome without additional spiral cords. Posterior sinus shallow. Base with two additional cords of which the first with tubercles, the second smooth. Protoconch paucispiral of 1.5-2 whorls with two rows of large granules, the lower being more prominent. Teleoconch brown; third spiral cord whitish on the lower half. Protoconch brown.

REMARKS. — Lot MNHN-IM-2000-707 contained two specimens belonging to different species. The first specimen (Fig. 50 A-I) has on most of the teleoconch the three spiral cords described by Jousseaume ("granulosus tribus") and is here designated as lectotype to stabilize the nomenclature. The second specimen (Fig. 50 J-Q) has three spiral cords only on the last whorl and can be further distinguished by the occur-

rence of additional spiral cords on the peristome and a brown colour with only the first and second cords of the second last whorl white.

Mastonia limosa Jousseaume, 1884
(Fig. 51)

Mastonia limosa Jousseaume, 1884: 263, pl. 4, fig. 16.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntypes.** New Caledonia • MNHN-IM-2000-706; 5 specimens; from type locality.

ORIGINAL DESCRIPTION. — *Testa elongato-turrita, solidula, nigrescente, ad basin rotundata; anfractibus 16-17 tuberculis biserialiter dispositis cinctis, tuberculorum interstitiis latis et profunda linea mediana separatis; sutura vix distincta; ultimo costis sex munito: quarum tribus posticis moniliformibus, alteris laevigatis; apertura subovata, lateraliter fissa; canali brevi, recurvo, tenuissime striato.* — Long. 7.9, lat. 2-2.5 millim. [Latin diagnosis followed by a discussion in French]

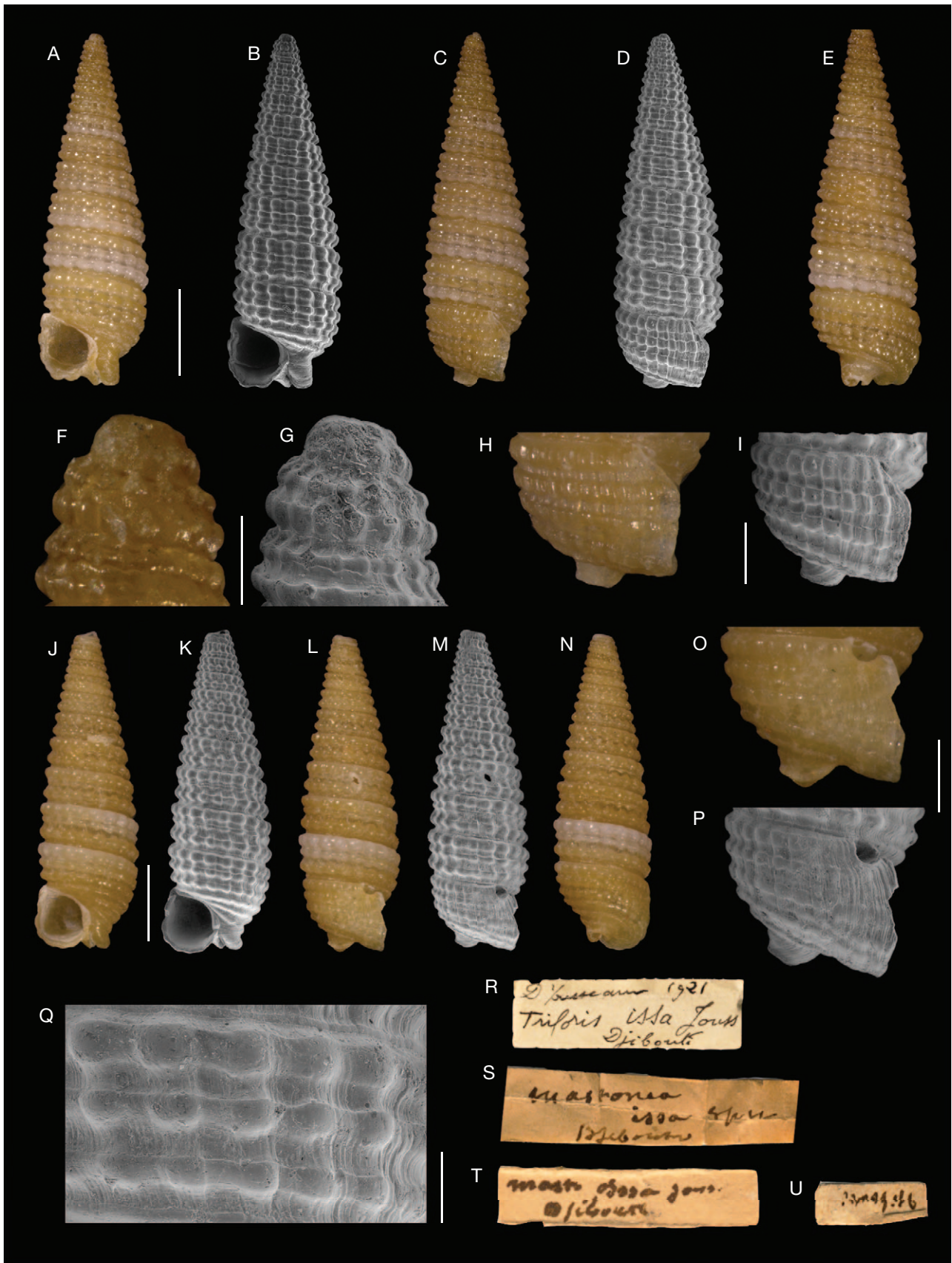


FIG. 50. — *Mastonia issa* Jousseaume, 1898, Djibouti: **A-I**, lectotype, MNHN-IM-2000-29263: front (**A**, **B**), side (**C**, **D**), back (**E**), protoconch (**F**, **G**), peristome (**H**, **I**); **J-Q**, *Triphoridae* indet., paralectotype, MNHN-IM-2000-707: front (**J**, **K**), side (**L**, **M**), back (**N**), peristome (**O**, **P**), microsculpture (**Q**); **R-U**, original labels. Scale bars: A-E, 2 mm; F, G, Q, 0.2 mm; H, I, O, P, 0.5 mm; J-N, 1 mm.

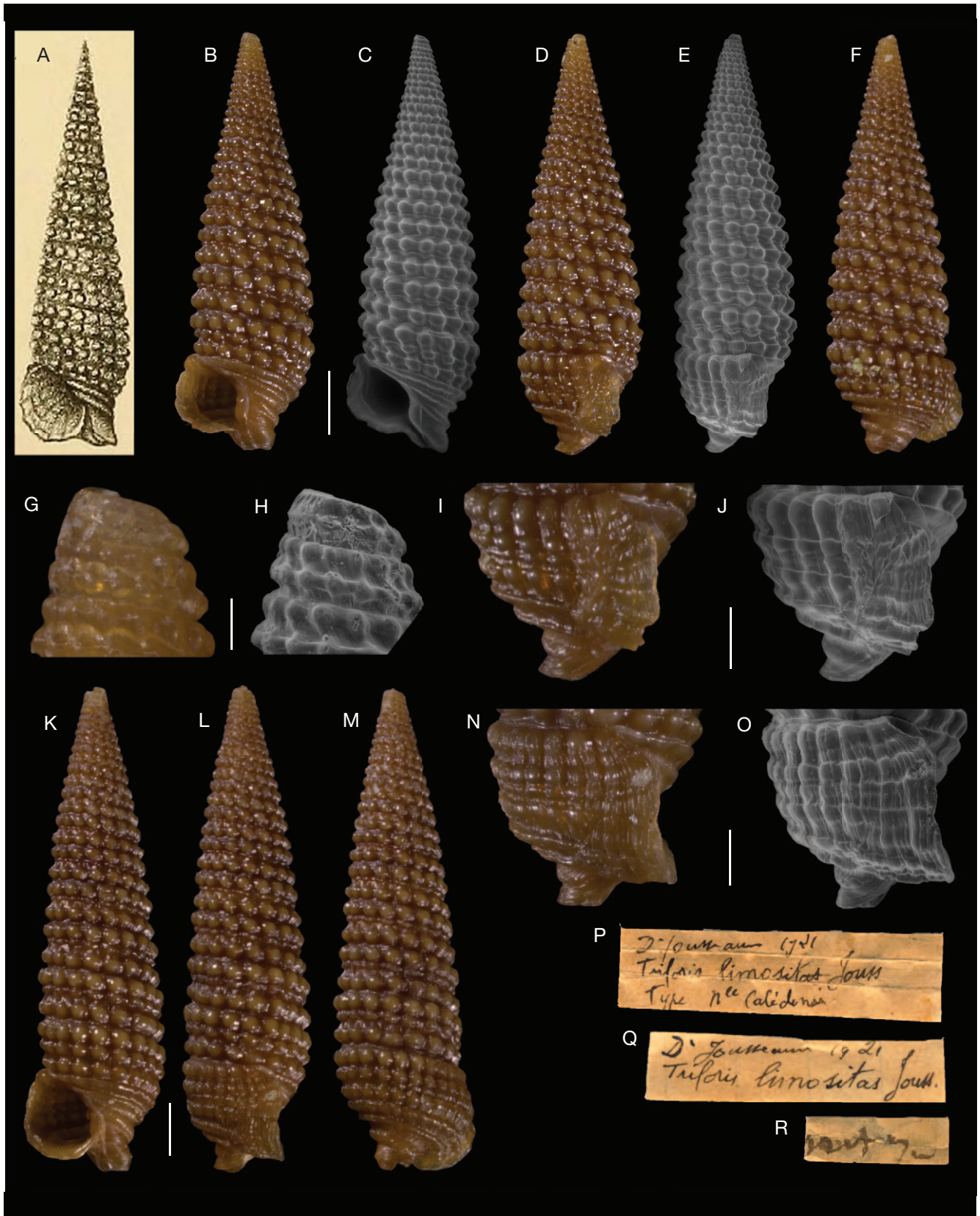


FIG. 51. — *Mastonia limosa* Joussemaume, 1884, New Caledonia: **A**, original figure in Joussemaume (1884); **B–J**, syntype 1, MNHN-IM-2000-706: front (**B**, **C**), side (**D**, **E**), back (**F**), apex (**G**, **H**), peristome (**I**, **J**); **K–O**, syntype 2, MNHN-IM-2000-706: front (**K**), side (**L**), back (**M**), peristome (**N**, **O**); **P–R**, original labels. Scale bars: A–F, K, M, 1 mm; G, H, 0.2 mm; I, J, N, O, 0.5 mm.

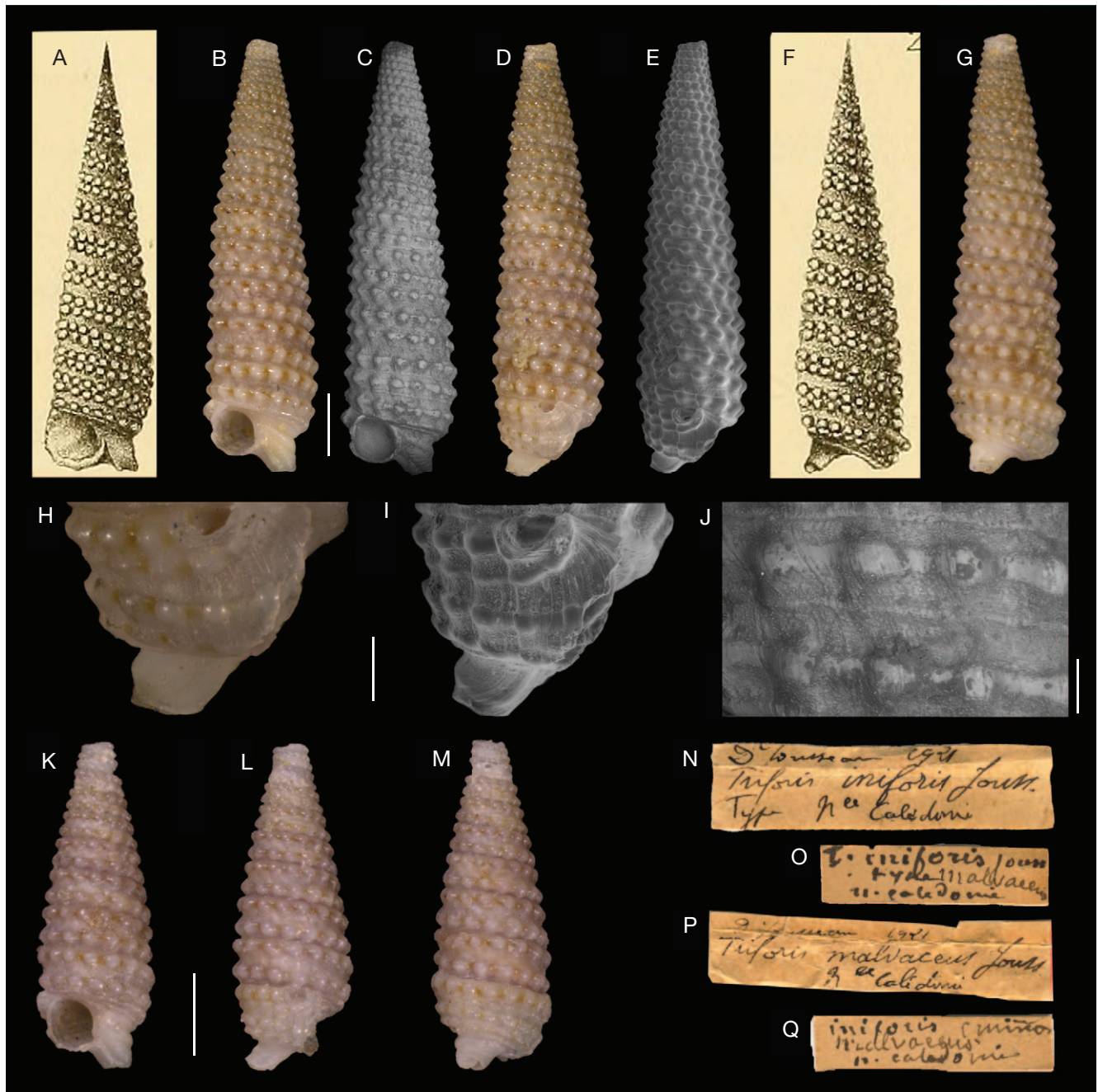


FIG. 52. — *Iniforis malvaceus* Jousseume, 1884, New Caledonia: **A**, **F**, original figure in Jousseume (1884); **B-E**, **G-J**, syntype, MNHN-IM-2000-1130; front (**B**, **C**), side (**D**, **E**), back (**G**), peristome (**H**, **I**), microsculpture (**J**); **K-M**, syntype, MNHN-IM-2000-1139; front (**K**), side (**L**), back (**M**); **N**, **O**, original labels lot MNHN-IM-2000-1130; **P**, **Q**, original labels lot MNHN-IM-2000-1139. Scale bars: **B-E**, **K-M**, 1 mm; **H**, **I**, 0.4 mm; **J**, 0.2 mm.

TRANSLATION OF THE LATIN TEXT. — Turreted-elongated shell, rather solid, brownish, rounded at the base; from 16 to 17 whorls with two series of tubercles, tubercles interspaces are separated by a large and deep median line; barely distinct suture; last whorl with six spiral cords: tubercled the three posterior ones, smooth the others; subovate aperture, laterally fissured; short siphon, curved, finely striated. — Length 7.9, diameter 2-2.5 mm.

DIAGNOSIS. — Shell conical with flat sides. Illustrated syntypes 7.2 and 8.9 mm high. Teleoconch of *c.* 13-14 whorls. Three spiral cords present, the second appearing on the tenth whorl. First and third cords with tubercles at the intersection with prosocline axial

ribs. Second cord initially as a fine thread, but later developing thin tubercles. Peristome with an additional spiral cord below the second spiral cord. Posterior sinus shallow. Base with three smooth additional spiral cords. Teleoconch brown, tubercles light brown on a dark brown background. Protoconch missing in the syntypes.

Iniforis malvaceus Jousseume, 1884
(Fig. 52)

Iniforis malvaceus Jousseume, 1884: 239, pl. 4, figs 1-2.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntypes.** New Caledonia • MNHN-IM-2000-1130; 1 specimen; from type locality • MNHN-IM-2000-1139; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa solidula, cinereo-violacea, elongato-subulata; anfractibus 18 (primi 3 laevigati, sequentes biseriatis tuberculis [series distantes, suturam obtegentes, tuberculis albescentibus, intervallisque rubro-pictis ornatae] cincti); ultimo seriebus tribus moniliformibus inaequalibusque cincto, ad latus sinistrum et prope suturam tubifero; apertura subrotundata, lateraliter fissas; canali subelongato, recurvo, superne unicarinato; — long. 9, lat. 2 millim. — Varietas minor, long. 5, lat. 1.5 millim.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Rather solid shell, purple-greyish, subulate-elongated; 18 whorls (the first three whorls are smooth, subsequent whorls with two series of tubercles [the distant series, hiding the suture, adorned by whitish tubercles interspersed with red ones]; last whorl with three unequal series of moniliform tubercles, tubular on the left side and near the suture; roundish aperture, laterally fissured; slightly elongated siphon, curved, unicarinated above; — length 9, diameter 2 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntypes 7.5 (MNHN-IM-2000-1130) and 4.2 (MNHN-IM-2000-1139) mm high. Teleoconch of *c.* 13 whorls. Three spiral cords present, the second appearing on the eleventh whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but developing thin tubercles towards the peristome. Spiral microsculpture of weakly granulate fine threads. Peristome without additional spiral cords. Posterior sinus deep. Base with two additional spiral cords of which the first developing flat tubercles, the second fine and smooth. Teleoconch light violet, interspaces between the tubercles on the spiral threads brown.

Mastonia maenades Jousseaume, 1898
(Fig. 53)

Mastonia maenades Jousseaume, 1898: 72, not illustrated.

ORIGINAL LOCALITIES. — Aden, Perim Island (Bab al-Mandab Strait, Yemen), Djibouti.

TYPE MATERIAL. — **Syntypes.** Djibouti • MNHN-IM-2000-485; 6 specimens. Saudi Arabia • MNHN-IM-2000-510; 3 specimens; Jeddah.

ORIGINAL DESCRIPTION. — *Testa solida, elongato-turrita, apice acuminata, nitens, alba, maculis ferrugineis longitrorsum irregulariter picta, granulis biseriatis dispositis cincta, intervallum funiculo parum granulosa divisum; anfr. 15-16 sutura sat distincta separati, primi 4 fulvi, sequentes 2 albi, alteri ferrugineo-maculati, ultimus contractus, costis quinque granulosis rugatus, ad basim laevis, apertura subovalis lateraliter fissas; canalis brevis parum abrupte recurvatus. Long. 5^{mm}5; diam. 1^{mm}5.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, turreted-elongated, acute apex, bright, white, with irregular rust-coloured spots, with two series of granules, interspaces are separated by a slightly granular little cord; from 15 to 16 whorls separated by a quite distinct suture, first four whorls are brown, subsequent are white, the other whorls present rust-coloured spots, last whorl restricted, with five granular spiral cords, left-handed at the base, subovate and laterally fissured aperture; short siphon, abruptly and slightly curved. Length 5 mm; diameter 1.5 mm.

DIAGNOSIS. — Shell conical with flat sides. Illustrated syntype 6.1 mm high. Teleoconch of 11 whorls. Three spiral cords present, the second appearing on the sixth whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of weakly granulate fine threads. Peristome with short additional spiral cords below the second and third spiral cord. Base with two additional spiral cords of which the first developing tubercles and the second smooth. Protoconch incomplete in the syntype, but clearly multispiral with two spiral keels and axial riblets. Teleoconch with the first two whorls white, others with brown blotches on a whitish background. Protoconch brown.

Inella mariei Jousseaume, 1884
(Fig. 54)

Inella mariei Jousseaume, 1884: 246, pl. 4, fig. 7.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntypes.** New Caledonia • MNHN-IM-2000-1611; 1 specimen; from type locality (lost?); MNHN-IM-2000-1266; 1 specimen; from type locality (lost?).

ORIGINAL DESCRIPTION. — *Testa elongato-turrita, angusta, solidula, luteo albescente; anfractibus circiter 15, planis, tricarinatis (carinae moniliformes [media minor, prima candida, tertia pallide lutea]), sutura impressa separatis; ultimo seriebus quinque moniliformibus-cincto; apertura subovali, lateraliter vix fissas, superne canali brevi unicarinato, munita. — Long. 6-5, lat. 1-3 millim.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Turreted-elongated shell, narrow, rather solid, yellow-whitish; about 15 whorls, flattened, with three spiral cords (the cords are tubercled [the middle one is smaller, the first cord is white, the third one is light yellow]), separated by an impressed suture; last whorl with five tubercled spiral cords; subovate aperture, laterally barely fissured, with a short and unicarinated siphon above. — Length 6-5, diameter 1-3 mm.

DIAGNOSIS. — Shell conical with flat sides. Illustrated syntype 6.7 mm high. Teleoconch of 12 whorls. Three spiral cords present, the second appearing on the sixth whorl. First and second cord with tubercles at the intersection with rather prosocline ribs. Second cord initially as a fine thread, but later developing tubercles becoming broader towards the later whorls. Peristome with additional spiral cords. Posterior sinus shallow. Base with three additional spiral cords of which the first two developing faintly tubercles, the third smooth. Paucispiral protoconch of 2-2.5 whorls with two spiral keels and axial riblets; nucleus large and apparently smooth (but no SEM image available). First teleoconch whorl white, the remainder light brown. Protoconch white with the second whorl light brown.

REMARK. — The two registered syntypes have not been found during a recent check of the collection (V. Héros, pers. comm., 8 December 2021).

Viriola morychus Jousseaume, 1898
(Fig. 55)

Viriola morychus Jousseaume, 1898: 76, not illustrated.

TYPE LOCALITY. — Djibouti.

TYPE MATERIAL. — **Syntypes** • MNHN-IM-2000-484; 9 specimens; Djibouti.

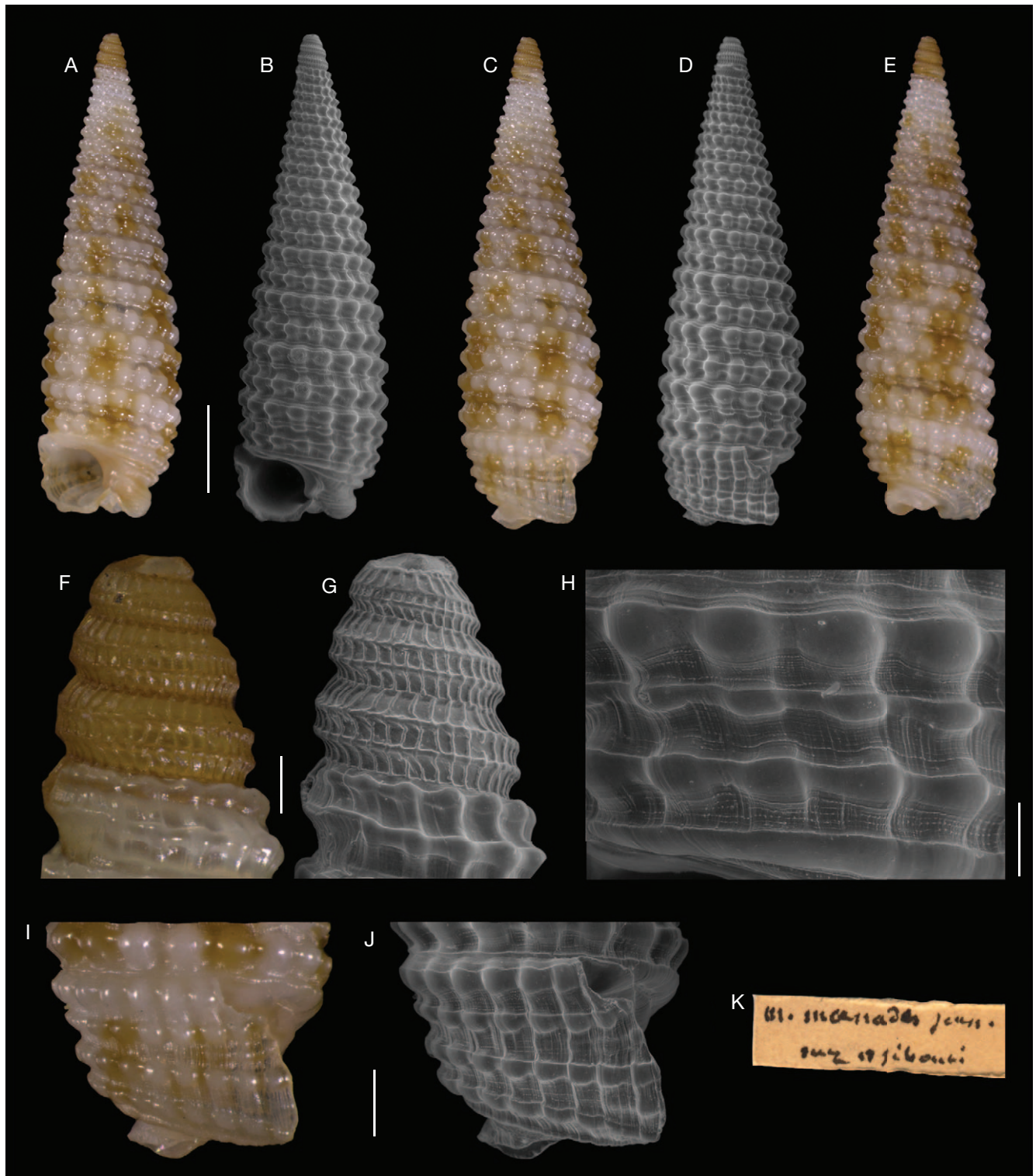


FIG. 53. — *Mastonia maenades* Jousseaume, 1898, Djibouti: **A-J**, syntype, MNHN-IM-2000-485 front (**A**, **B**), side (**C**, **D**), back (**E**), protoconch (**F**, **G**), microsculpture (**H**), peristome (**I**, **J**); **K**, original label. Scale bars: A-E, 1 mm; F, G, 0.1 mm; H, 0.2 mm; I, J, 0.4 mm.

ORIGINAL DESCRIPTION. — *Testa solida, elongata, conico-subulata, nitidiuscula, alba irregulariter rufo-marmorata; anfr. circiter 23, plani, regulariter crescenti, primi 4-5 apice olivaeforme terminantes, sequentes carinis tribus laevibus inaequalibus (antica major mediana minor), cincti, intertiones carinarum excavatae clathratae, sutura funiculo granuloso marginata, ultimus antice planus, parum excavatus,*

carinis 4 ad aperturam 7, instructus, carina antica granulosa, altera laeves; apertura circularis, alba pallide fusco-zonata, lateraliter fissa; labrum undulatum, externe, septem angulis crenatum, album fulvo pictum; canalis elongates retrorsum recurvus. Long. 9 à 13mm; diam. 1mm8 à 2mm5.

[Latin diagnosis followed by a discussion in French]

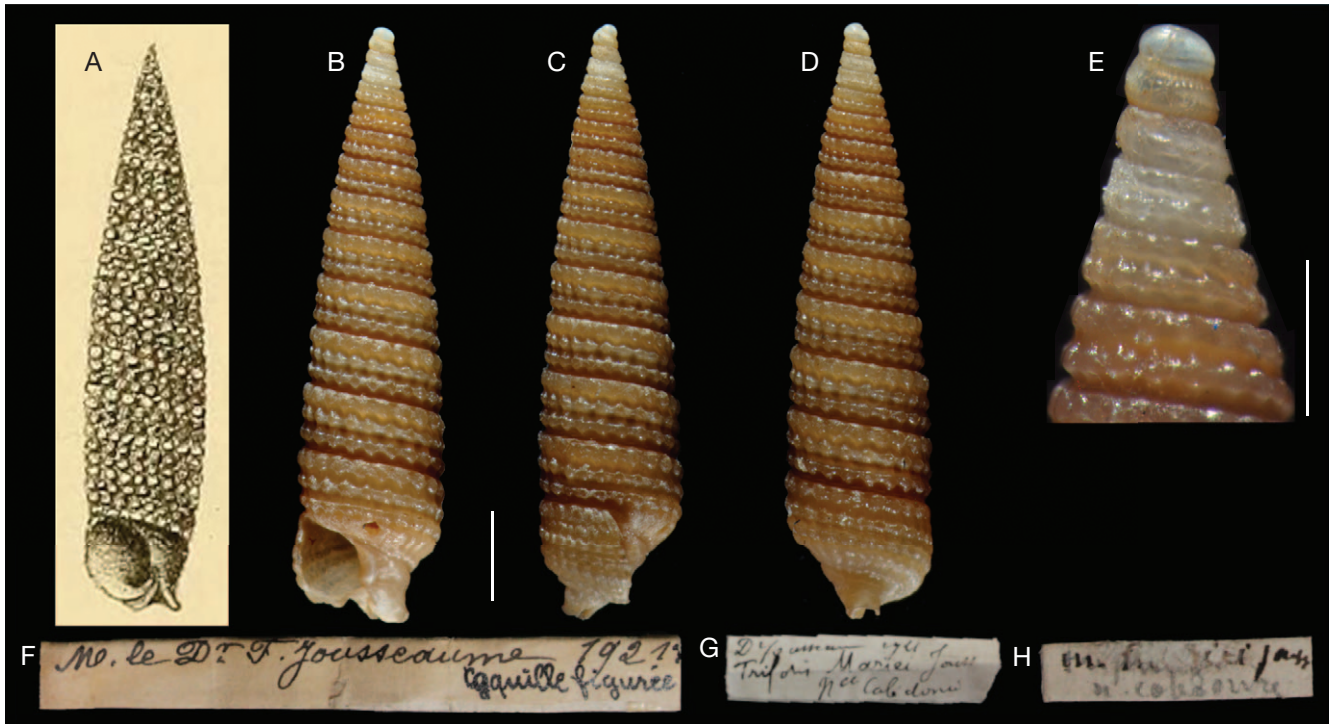


FIG. 54. — *Inella mariei* Jousseaume, 1884, New Caledonia: **A**, original figure in Jousseaume (1884); **B-E**, syntype, MNHN-IM-2000-1611; front (**B**), side (**C**), back (**D**), apex (**E**); **F-H**, original labels. Scale bars: B-D, 1 mm; E, 0.5 mm.

TRANSLATION OF THE LATIN TEXT. — Solid shell, elongated, conical-subulate, slightly bright, irregularly marbled with white and red; about 23 whorls, flattened, regularly growing first four-five whorls ending with an olive-shaped apex, subsequent with three unequal and smooth spiral cords (the anterior cord is larger, the median cord is smaller), interspaces between spiral cords are squarely excavated, the suture is bordered by a small granular cord, anteriorly flattened last whorl, slightly excavated, with seven spiral cords, four near the aperture, anterior cords are granular, the other ones are smooth; rounded aperture, banded in white and light yellow, laterally fissured; waved lip, externally notched with seven bumps, coloured with white and yellow; elongated and backwards curved siphon. Length from 9 to 13 mm; diameter from 1.8 mm to 2.5 mm.

DIAGNOSIS. — Shell elongated with flat sides. Syntypes 7.1 and 12.6 mm high. Teleoconch of *c.* 14 whorls. Three smooth spiral cords present, the second appearing later. Spiral microsculpture of fine threads next to the main cords; the rest of the interspaces smooth. Peristome with an additional spiral cord below the second. Base with two additional smooth spiral cords, the second rather weak. Teleoconch brown with lighter spiral cords bearing white blotches. Protoconch multispiral of *c.* 5 whorls bearing two spiral keels and axial riblets. Dark brown blotches also present and mostly visible between the main cords. Base and siphonal canal brown. Protoconch brown.

Obesula mus Jousseaume, 1898
(Fig. 56)

Obesula mus Jousseaume, 1898: 76, not illustrated.

TYPE LOCALITY. — Djibouti.

TYPE MATERIAL. — Syntypes. Djibouti • MNHN-IM-2000-1595; 2 specimens; Djibouti.

ORIGINAL DESCRIPTION. — *Testa solidiuscula cylindraceo ovata, apice attenuata, longe acuminata, lutea, costis tenuis granulosis ornata; anfr. 15 irregulariter crescenti, sutura parum distincta separati, primi 4 nigri, sequentes costis 3 granulosis, inaequalibus (media parum minuta) cincti, ultimus antice attenuatus, subrotundatus, costis granulosis quinque rugatus; intercostas anteriores et penultima linea fulva decurrans; apertura pyriformis linea nigra pictaurata; canalis brevissimus. Long. 4mm2; diam. 1mm2.*

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Slightly solid, ovate and cylindrical shell, slender apex, very acute, yellow, adorned by thin granular spiral cords; 15 irregularly growing whorls, separated by a slightly distinct suture, first four whorls are brown, subsequent whorls with three unequal granular spiral cords (median whorl slightly smaller), anteriorly reduced last whorl, roundish, with five granular spiral cords; anterior and penultimate interspaces with a brown line; pyriform aperture with a brown line; very short siphon. Length, 4.2 mm; diameter 1.2 mm.

DIAGNOSIS. — Shell cyrtocooid. Illustrated syntype 4.6 mm high. Teleoconch of 11 whorls. Three spiral cords present, the second appearing on the seventh whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Tubercles on the first spiral cord larger. Second cord initially with flat tubercles becoming larger on the lower whorls. Spiral microsculpture of fine threads between the spiral cords. Posterior sinus shallow. Peristome rebuilt after breakage in the syntype and thus not reliable to assess the presence of additional spiral cords. Base with two spiral cords of which the first developing tubercles, the second smooth. Incomplete protoconch in the syntype, but clearly multispiral with two spiral keels and axial riblets. First two teleoconch whorls white, others yellowish to light brown with a brown line running between the second and third spiral cords. Protoconch brown.

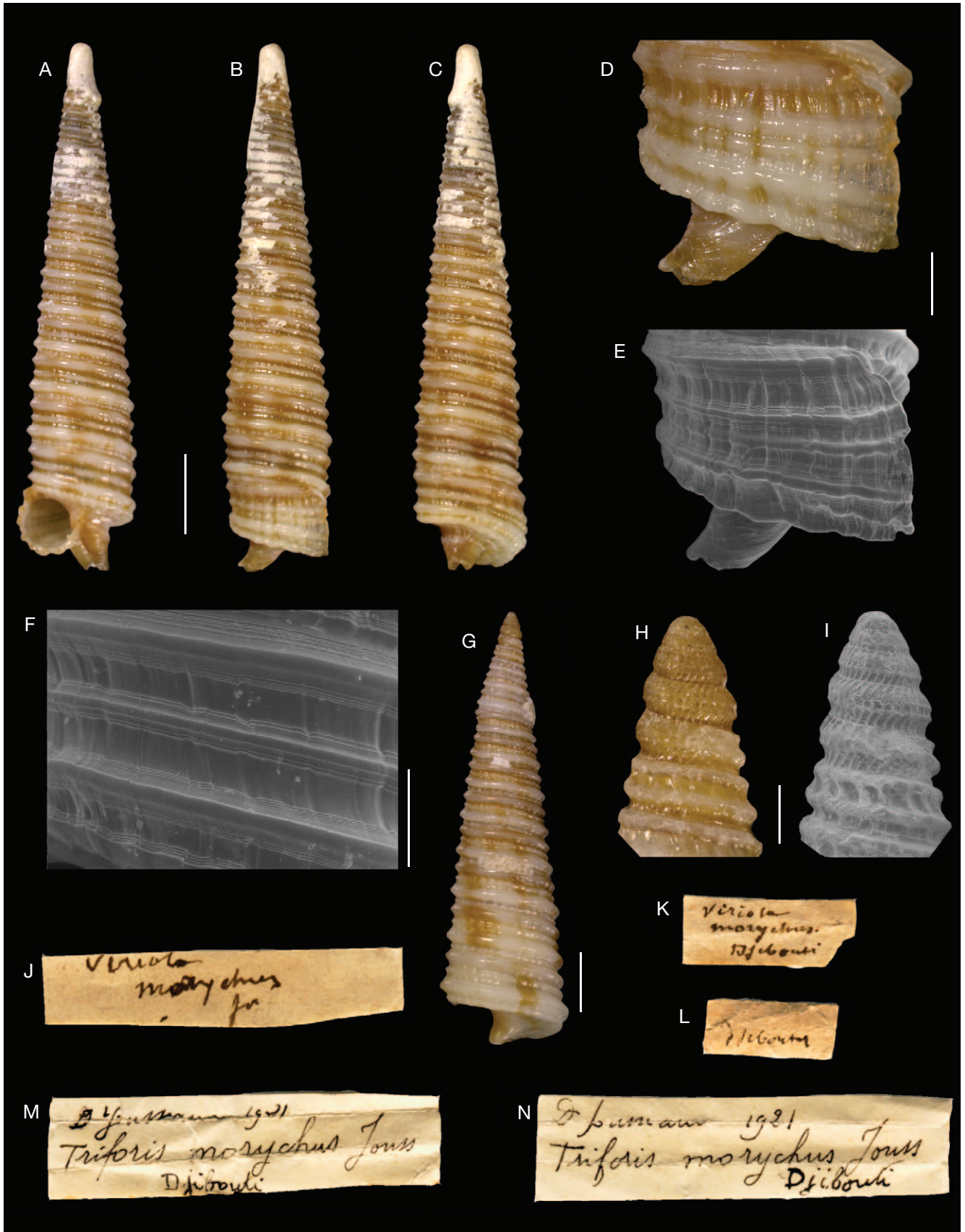


FIG. 55. — *Viriola morychus* Joussemae, 1898, Djibouti: **A-F**, syntype 1, MNHN-IM-2000-484: front (**A**), side (**B**), back (**C**), peristome (**D**, **E**), microsculpture (**F**); **G-I**, syntype 2, MNHN-IM-2000-484: front (**G**), protoconch (**H**, **I**); **J-N**, original labels. Scale bars: A-C, 2 mm; D, E, 0.5 mm; F, H, I, 0.2 mm; G, 1 mm.

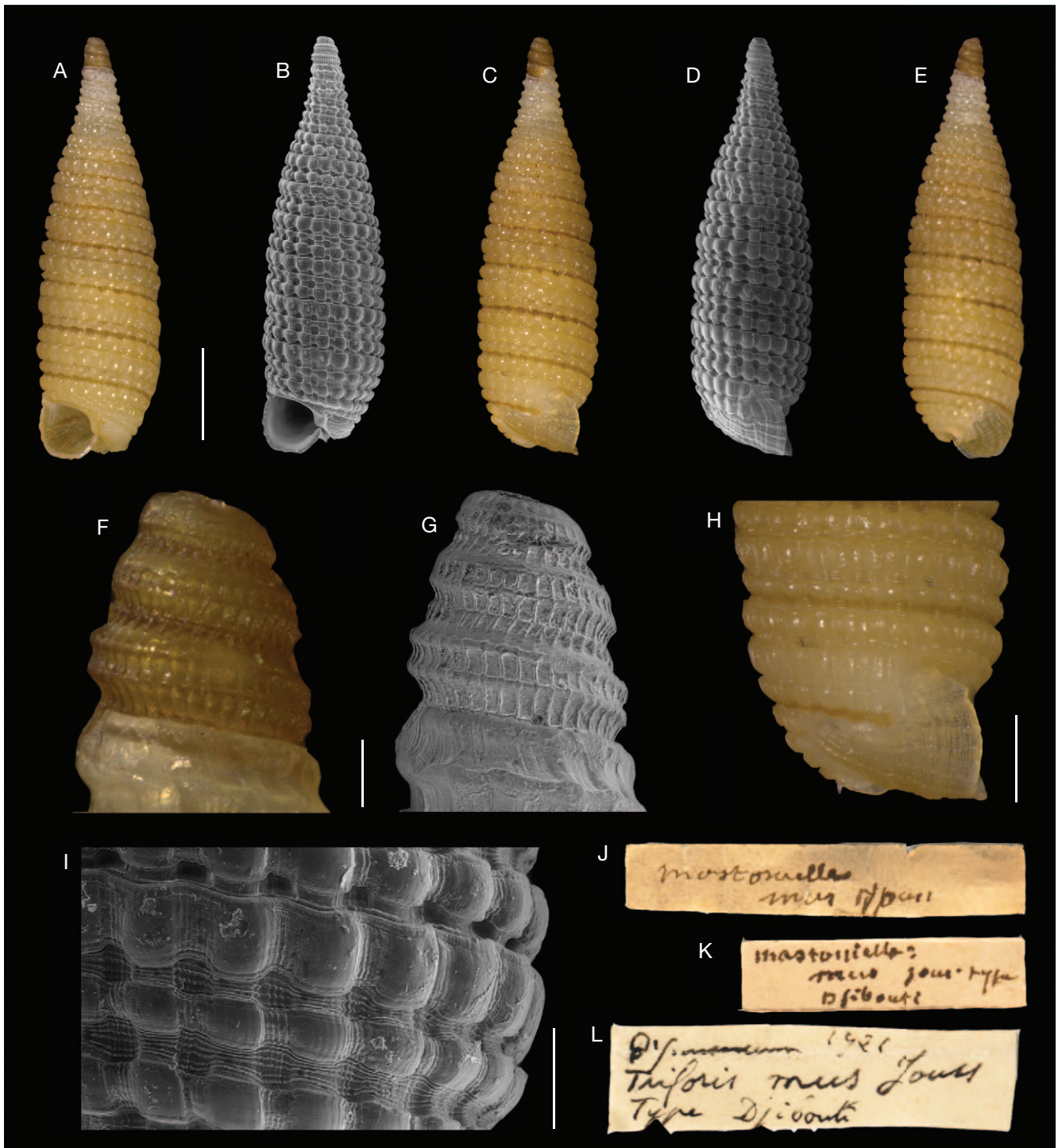


FIG. 56. — *Obesula mus* Jousseume, 1898, Djibouti: **A-I**, syntype, MNHN-IM-2000-1595 front (**A**, **B**), side (**C**, **D**), back (**E**), protoconch (**F**, **G**), peristome (**H**), microsculpture (**I**); **J-L**, original labels. Scale bars: A-E, 1 mm; F, G, 0.1 mm; H, 0.5 mm; I, 0.2 mm.

Inella numerosa Jousseume, 1898
(Fig. 57)

Inella numerosa Jousseume, 1898: 72, not illustrated.

TYPE LOCALITY. — Perim Island, Bab al-Mandab Strait, Yemen.

ADDITIONAL ORIGINAL LOCALITIES. — Jeddah, Aden, Djibouti.

TYPE MATERIAL. — Lectotype • MNHN-IM-2000-29264; here designated.

Paralectotypes. Triphoridae indet. Yemen • MNHN-IM-2000-509; 11 specimens; Perim Island, Bab al-Mandab Strait, Yemen.

ORIGINAL DESCRIPTION. — *Testa solida, ovato-cylindrica, apice subulata, nigricante-fulva, costis granulosis tribus cincta, granula opposita in seriebus longitudinalibus disposita; anfr. 13 primi laeves, sequentes*

granuloso-cancellati, ultimus antice rotundatus, carinis moniliformibus quinque rugatus; sutura profunda canaliculata; apertura rotundata lateraliter fissis; canalis brevis parum recurvus. Long. 3mm5; diam. 1mm. [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, cylindrical-ovate, subulate apex, dark brown, with three granular spiral cords, granules are arranged in longitudinal series; 13 whorls, first ones smooth, subsequent whorls granulated-cancellate, last whorl rounded, with five tubercled spiral cords; deep and canaliculated suture; rounded and laterally fissured aperture; short and slightly curved siphon. Length 3.5 mm; diameter 1 mm.

DIAGNOSIS. — Shell cyrtocoid with flat sides. Lectotype 4.2 mm high. Teleoconch of 8 whorls. Three spiral cords present starting from the first teleoconch whorl. All three cords with tubercles at the intersection with rather orthocline axial ribs. Peristome without additional cords. Posterior sinus barely visible in the lectotype. Base with three additional tubercled cords. Multispiral protoconch of four whorls with one keel and equally strong axial riblets. Teleoconch and protoconch brown.

REMARKS. — The lot in the collection contained 12 specimens belonging to at least two, if not more, species belonging to a difficult group of small-sized and uniformly coloured (usually brown) taxa. The main difference among the specimens is that four specimens (Fig. 56A-J, V-X) have three spiral cords since the beginning of the teleoconch, whereas the others have the second cord developing later, usually in the second half of the teleoconch. Jousseume (1898) wrote that “*Inella numerosa* is characterized by three tubercled spiral cords (“*costis granulosis tribus cincta*”) and brown colour (“*nigricante-fulva*”); both characters are visible only in a single specimen of the original series, which is here designated as lectotype to stabilize nomenclature. The generic assignment is also dubious, but we refrain from further comments pending a full revision of triphorid genera.

Mastonia obesula Jousseume, 1884
(Fig. 58)

Mastonia obesula Jousseume, 1884: 255, pl. 4, fig. 17.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — Lectotype. New Caledonia • MNHN-IM-2000-29265; from type locality, here designated. Paralectotypes. Triphoridae indet. New Caledonia • MNHN-IM-2000-1614; 5 specimens.

ORIGINAL DESCRIPTION. — *Testa ovata, solidula, ventricosa, apice attenuata; anfractibus 13, seriebus tuberculorum tribus ornatis (series media minuta, alteras aequales), sutura vix distincta separatis; ultimo ad basin luteo-tincto, costis quinque moniliformibus ornato; apertura pyriformi, lateraliter fissis; canali brevi. — Long. 4, lat. 1,5 millim.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Ovate shell, rather solid, broad, reduced apex; 13 whorls, adorned by three series of tubercles (the median series is smaller, other series are equal), separated by a barely distinct suture; the last whorl is coloured in yellow at the base and adorned by five tubercled spiral cords; pyriform aperture, laterally fissured; short siphon. — Length 4, diameter 1.5 mm.

DIAGNOSIS. — Shell cyrtocoid. Lectotype 3.4 mm high. Teleoconch of 7.5 whorls. Three spiral cords present, the second appearing on the sixth whorl. First and third cords with tubercles at the intersec-

tion with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of barely visible fine threads. Peristome with additional cords below the second and third spiral cord. Posterior sinus relatively deep. Base with three additional spiral cords of which the first developing tubercles, the other two smooth. Protoconch incomplete in the syntype, but clearly multispiral with one spiral keel and equally strong axial riblets. Teleoconch and protoconch brown, with the first teleoconch whorl and the base lighter.

REMARKS. — Lot MNHN-IM-2000-1614 contained six specimens belonging to two, if not more, species. One morphotype (Fig. 57B-K) is more slender, uniformly brown except the yellowish base, bears two main tubercled spiral cords with a third developing as a thin thread until the last whorl where it is fully developed. The second morphotype (Fig. 57I) is broader and with a marbled colour pattern with irregularly positioned lighter tubercles and darker interspaces. Due to Jousseume's reference to the yellow base (“*ultimo ad basin luteo-tincto*”), we here consider that the first morphotype represents *M. obesula* and here designate its lectotype to stabilize the nomenclature.

Obesula pantherina Jousseume, 1898
(Fig. 59)

Obesula pantherina Jousseume, 1898: 76, not illustrated.

TYPE LOCALITY. — Djibouti.

ADDITIONAL ORIGINAL LOCALITIES. — Aden, Perim Island (Bab al-Mandab Strait, Yemen).

TYPE MATERIAL. — Lectotype. Djibouti • MNHN-IM-2000-29266; here designated.

Paralectotypes. Djibouti • MNHN-IM-2000-1596; 2 paralectotypes; Djibouti.

Yemen • *Mastonia maenades* Jousseume, 1898; MNHN-IM-2000-1597; 3 paralectotypes; Perim Island, Bab al-Mandab Strait.

ORIGINAL DESCRIPTION. — *Testa parva, solida, ovata, ventricosa, apice attenuata, acuminata, alba maculis ferrugineis aut fulvo-nigris irregulariter tincta; anfr. circiter 12 seriebus tuberculorum duobus ornati, intertitiones cancellatae, sutura profunda, distinctissima separati, ultimus antice attenuatus costis, quatuor moniliformibus rugatus; apertura pyriformis, lateraliter fissis, canalis brevis. Long. 2mm2; diam. 1mm.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Small shell, solid, ovate, broad, slender apex, acute, irregularly coloured with white, rust-coloured or dark brown spots; about 12 whorls adorned by two series of tubercles, with cancellate interspaces, separated by a deep and very distinct suture, anteriorly reduced last whorl with four tubercled spiral cords; pyriform aperture, laterally fissured, short siphon. Length 2.2 mm; diameter 1 mm.

DIAGNOSIS. — Shell cyrtocoid. Lectotype 2.4 mm high. Teleoconch of 6.5 whorls. Three spiral cords present, the second appearing on the sixth whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing tubercles. Base with three additional tubercled spiral cords. Second spiral cord on the base smaller. Multispiral protoconch of 5 whorls with two spiral keels and equally strong axial riblets. Nucleus eroded in the lectotype but apparently with a reticulated sculpture. First teleoconch whorl white, the following ones white with orange-brown blotches. Base brown. Protoconch most likely light brown but faded in the lectotype.

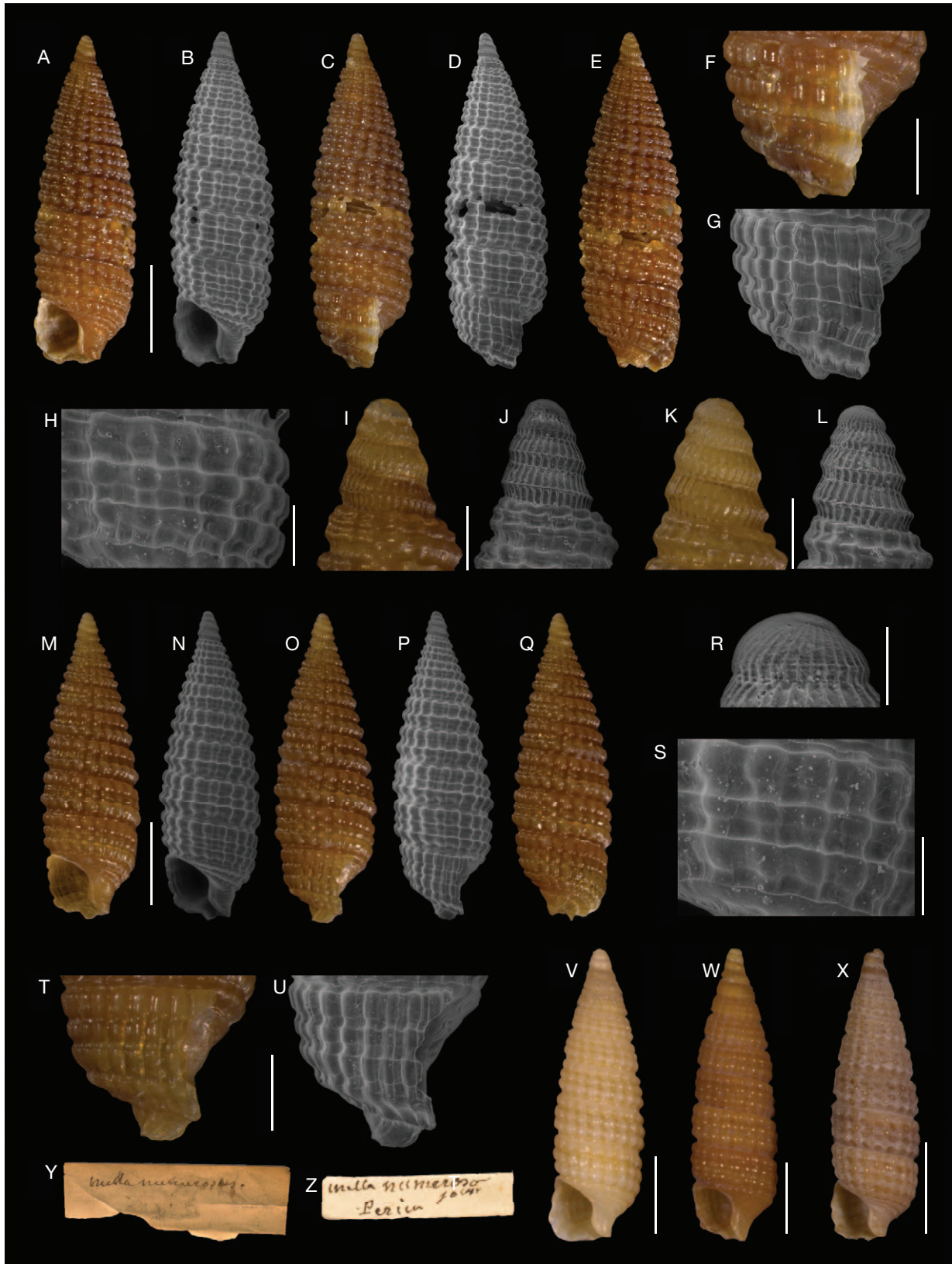


FIG. 57. — *Inella numerosa* Jousseaume, 1898, Perim Island, Bab al-Mandab Strait, Yemen: **A–J**, lectotype, MNHN-IM-2000-29264: front (**A, B**), side (**C, D**), back (**E**), peristome (**F, G**), microsculpture (**H**), protoconch (**I, J**); **K–U**, Triphoridae indet. (non *Inella numerosa*), Perim Island, Bab al-Mandab Strait, Yemen, MNHN-IM-2000-509: protoconch (**K, L**), front (**M, N**), side (**O, P**), back (**Q**), first protoconch whorl (**R**), microsculpture (**S**), peristome (**T–U**); **V**, Triphoridae indet. (non *Inella numerosa*), Perim Island, Bab al-Mandab Strait, Yemen, paralectotype, MNHN-IM-2000-509: front; **W**, Triphoridae indet. (non *Inella numerosa*), Perim Island, Bab al-Mandab Strait, Yemen, paralectotype, MNHN-IM-2000-509: front; **X**, Triphoridae indet. (*Inella numerosa*?), Perim Island, Bab al-Mandab Strait, Yemen, paralectotype, MNHN-IM-2000-509: front; **Y–Z**, original labels lot MNHN-IM-2000-509. Scale bars: A–E, M–Q, V–X, 1 mm; F, G, T–U, 0.4 mm; H–L, S, 0.2 mm; R, 0.1 mm.

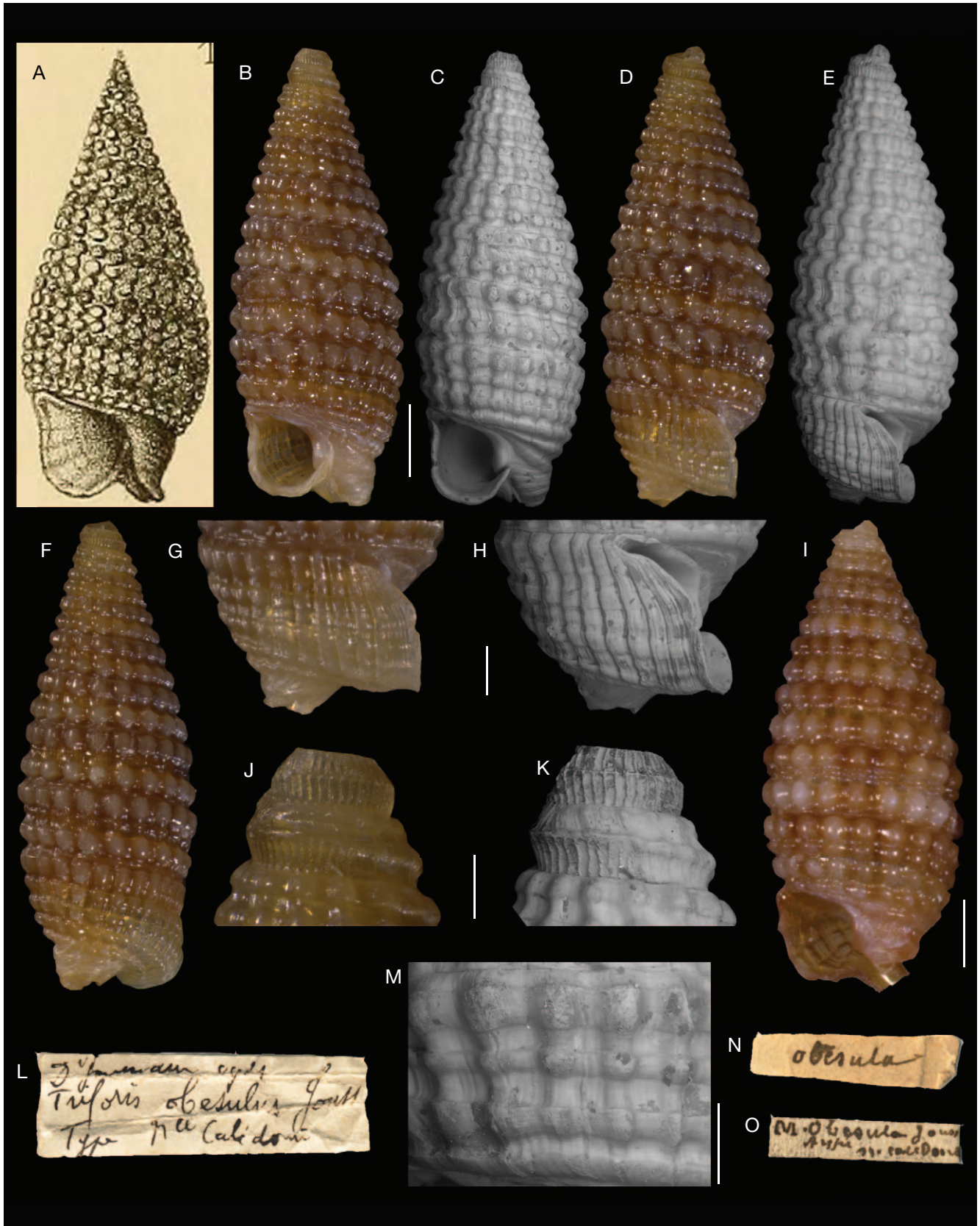


FIG. 58. — *Mastonia obesula* Jousseume, 1884, New Caledonia: **A**, original figure in Jousseume (1884); **B-H, J, K, M**, lectotype, MNHN-IM-2000-29265: front (**B, C**), side (**D, E**), back (**F**), peristome (**G, H**), apex (**J, K**), microsculpture (**M**); **I**, Triphoridae indet., MNHN-IM-2000-1614; front; **L, N, O**, original labels. Scale bars: B-F, I, 0.5 mm; G, H, M, 0.2 mm; J, K, 0.1 mm.

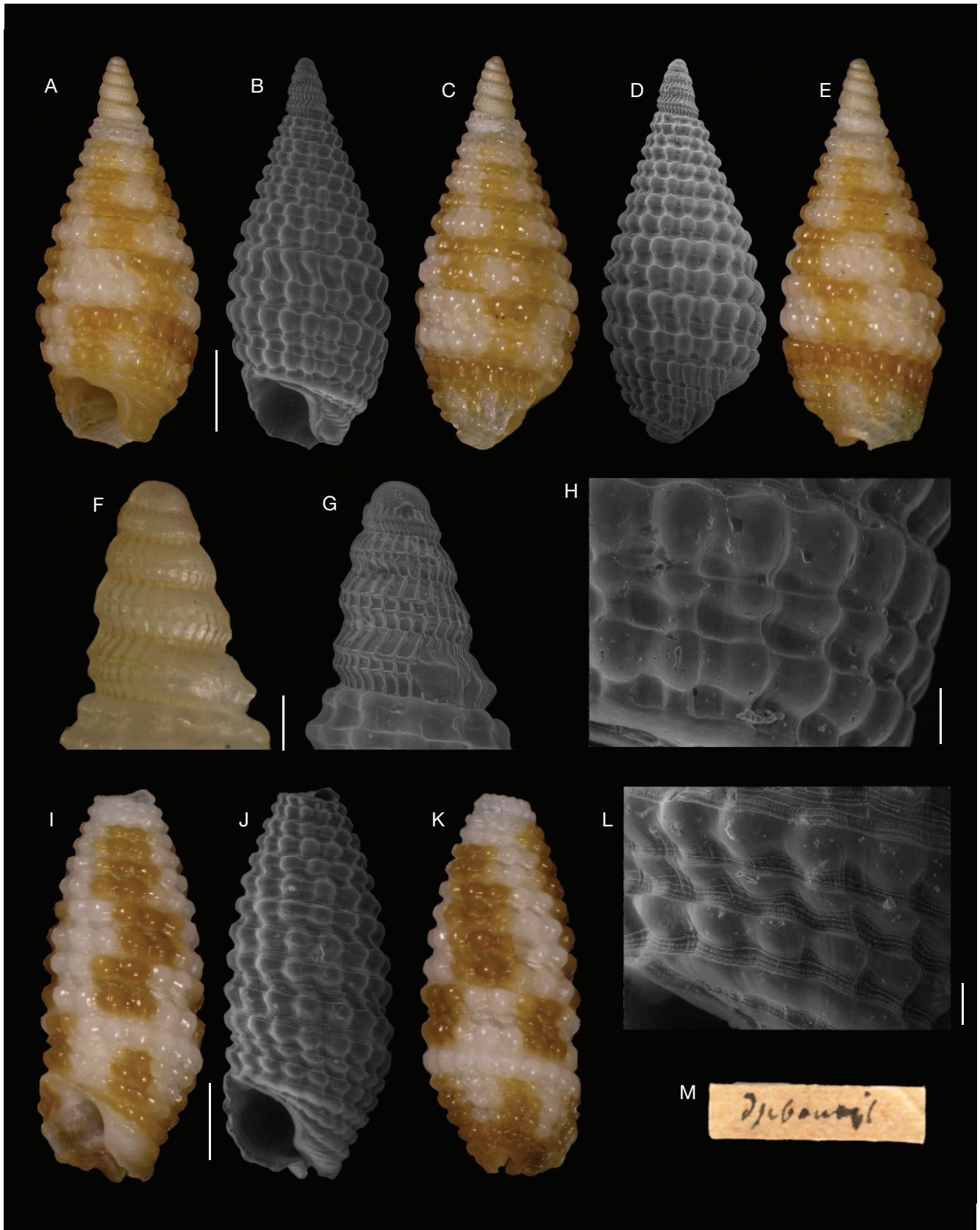


FIG. 59. — **A–H**, *Obesula pantherina* Jousseaume, 1898, lectotype, MNHN-IM-2000-29266, Djibouti: front (**A**, **B**), side (**C**, **D**), back (**E**), protoconch (**F**, **G**), microsculpture (**H**); **I–L**, *Mastonia maenades* Jousseaume, 1898, Perim Island, Bab al-Mandab Strait, Yemen, paralectotype, MNHN-IM-2000-1597; front (**I**, **J**), back (**K**), microsculpture (**L**); **M**, original label lot MNHN-IM-2000-29266. Scale bars: A–E, I–K, 0.5 mm; F–H, L, 0.1 mm.

REMARKS. — The type series contained two lots and two species. *Obesula pantherina* is characterized by its acuminate shape (“*acuminata*”), with four distinct tubercled spiral cords on the last whorl (“*quatuor moniliformibus rugatus*”). However, lot MNHN-IM-2000-1597 contained three shells of which only one in good condition (Fig. 58I-L), characterized by a more oval shape and only three distinct spiral cords on the last whorl. Additionally, this specimen has a spiral microsculpture and a colour pattern that readily distinguishes it from *O. pantherina*. To stabilize nomenclature, we here designate the lectotype of *O. pantherina* (Fig. 58A-H).

***Mastonia peanites* Jousseaume, 1898**
(Fig. 60)

Mastonia peanites Jousseaume, 1898: 74, not illustrated.

TYPE LOCALITY. — Djibouti.

ADDITIONAL ORIGINAL LOCALITIES. — Jeddah, Massaua.

TYPE MATERIAL. — **Lectotype** • MNHN-IM-2000-29267; here designated.

Paralectotypes. Djibouti • MNHN-IM-2000-506; 1 specimen • *Mastonia* cf. *servaini* Jousseaume, 1884, MNHN-IM-2000-29268; 1 specimen.

ORIGINAL DESCRIPTION. — *Testa solida, obesa, ovato elongata, apice acuminata, alba et fulvo flavica spiraliter zonata, granulis biserialiter dispositis cincta, intertitiones funiculo parvo et striis tenuissimis spiraliter ornata; anfr. 15 16 sutura parum distincta separati, primi 2 corneo-fulvi, sequentes 2 albi, postea 4-5 seriebus granulorum duabus (antica alba, postica fulvo-nigra), cincti, alteri serie antica alba, postica flavida ornati, ultimus contractus, costis quinis granulos inaequalibus rugatus, intergranulas linea interrupta nigricante spiraliter picta; apertura subquadrata rotundata, labrum album, saepe fulvo maculatum, ad suturam profunda fissum, canalis albus recurvus. Long. 8mm; lat. 2mm5.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, broad, ovate-elongated, slender apex, spirally banded in white and brown-yellowish, with two series of granules, spirally adorned by a small cord and very fine growing lines; from 15 to 16 whorls separated by a slightly distinct suture, first two whorls are corneous-brown, subsequent two whorls are white, subsequent 4-5 whorls with two series of granules (anterior series is white, subsequent series is dark brown), the other series of whorls are adorned by an anterior white cord and a posterior brown cord, restricted last whorl, with five granular unequal spiral cords, spirally coloured with a interrupted brownish line between granules; squarish and rounded aperture, white lip, often spotted with yellow, fissured near the deep suture, white and curved siphon. Length 8 mm; diameter 2.5 mm.

DIAGNOSIS. — Shell rather conical with flat sides. Lectotype and paralectotype 7.0 mm high. Teleoconch of *c.* 12 whorls. Three spiral cords present, the second appearing on the ninth whorl. First and third cords with tubercles at the intersection with prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of weakly granulate fine threads. Peristome without additional spiral cords. Posterior sinus relatively deep. Base with two additional tubercled spiral cords. Second spiral cord on the base thinner. Teleoconch white with the first spiral cord orange; on the lower whorls, yellow to brown only in the interspaces between the tubercles on the first spiral cord. Brown interspaces between tubercles on all spiral cords on the last whorl.

REMARK. — The lot contained a specimen that, although subadult and worn, clearly does not belong to *M. peanites* (Fig. 59J) due to its colour pattern with brown spots between white tubercles on

the second cord. This pattern resembles closely *Mastonia servaini* Jousseaume, 1884, although we remark that multiple species share this colour character.

***Inella perimensis* Jousseaume, 1898**
(Fig. 61)

Inella perimensis Jousseaume, 1898: 72, not illustrated.

TYPE LOCALITY. — “Aden, Djibouti, Perim”.

ADDITIONAL ORIGINAL LOCALITIES. — Jeddah.

TYPE MATERIAL. — **Lectotype** • MNHN-IM-2000-29269; here designated.

Paralectotypes. Saudi Arabia • MNHN-IM-2000-505; 1 specimen; Jeddah; MNHN-IM-2000-482; 3 specimens; from type locality. Djibouti • MNHN-IM-2000-1587; 1 specimen (not seen).

Saudi Arabia • Cerithiopsidae indet.; MNHN-IM-2000-29270; 1 specimen; from type locality • Triphoridae indet.; MNHN-IM-2000-29271; 1 specimen; from type locality.

Yemen • Triphoridae indet.; MNHN-IM-2000-481; 2 specimens; Aden • MNHN-IM-2000-480; 1 specimen; Perim Island, Bab al-Mandab Strait.

ORIGINAL DESCRIPTION. — *Testa rosaceo-rubida, solidula, cylindraceo-conica, obesula; anfr. 14, sutura profunda canaliculata discreti, primi minutissimi, albi, sequentes 3 fulvi, unicarinati, intertitiis cancellati, alteri tuberculis oppositis in seriebus tribus dispositis ornati, intertitiis cancellatis, alveolatis, ultimus ad basim subcanaliculatus, carinis moniliformibus quinque rugatus; apertura subovalis, lateraliter fissis; canalis brevis parum apertus. Long. 4mm6; diam. 1mm3.* [Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Pink-reddish shell, rather solid, cylindrical-conical, broad; 14 whorls separated by a deep canaliculated suture, first whorls very small, white, subsequent whorls brown, unicarinated, with cancellate interspaces, the other whorls are adorned by three series of tubercles, with cancellate interspaces, with honeycomb-like cavities, the last whorl is slightly canaliculated at the base, with five tubercled spiral cords; subovate aperture, laterally fissured; short and slightly open siphon. Length 4.6 mm; diameter 1.3 mm.

DIAGNOSIS. — Shell conical with flat sides. Lectotype 4.3 mm high, illustrated paralectotype 2.6 mm high. Teleoconch of 5.5-8 whorls. Three spiral cords present, the second appearing on the fourth whorl. First and third cords with tubercles at the intersection with orthocline axial ribs. Second cord initially as a fine thread, but later developing tubercles. Peristome without additional spiral cords. Posterior sinus shallow. Base with three weakly tubercled additional spiral cords. Multispiral protoconch of five whorls with one spiral keel and equally strong axial riblets. Teleoconch violet. Protoconch brown.

REMARKS. — The type series contains several lots and more than one species. Lot MNHN-IM-2000-482 contained a Cerithiopsid (Fig. 60U). The lot MNHN-IM-2000-480 contains a single white specimen (Fig. 60R-S), with a more elongated shape, and thicker and more strongly tubercled spiral cords on the base. Similar white specimens were present in MNHN-IM-2000-481 (2 specimens, but one is so worn to hamper any identification). MNHN-IM-2000-482 contained a white specimen with a weaker first spiral cord (Fig. 60T); its general appearance may reflect a teratological specimen as well as



FIG. 60. — **A–H**, *Mastonia pearites* Jousseaume, 1898, Djibouti, lectotype, MNHN-IM-2000-29267: front (**A**, **B**), side (**C**, **D**), back (**E**), peristome (**F**, **G**), microsculpture (**H**); **I**, paralectotype, MNHN-IM-2000-506: front; **J**, *Mastonia* cf. *servaini* Jousseaume, 1884, Djibouti, MNHN-IM-2000-29268: front; **K**, **L**, original labels. Scale bars: **A–E**, **I**, **J**, 1 mm; **F**, **G**, 0.5 mm; **H**, 0.2 mm.

a distinct species, but the shell condition is inadequate for a precise identification. Last, the type series contained also two fresh pink to violet specimens (“*rosacea-rubida*” as in Jousseaume’s original description). One of them shares the same approximate number of whorls and size as in the original description and is here designated as lectotype to stabilize nomenclature (Fig. 60A–F).

Euthymia regalis Jousseaume, 1884
(Fig. 62)

Euthymia regalis Jousseaume, 1884: 265, pl. 4, fig. 18.

TYPE LOCALITY. — New Caledonia.

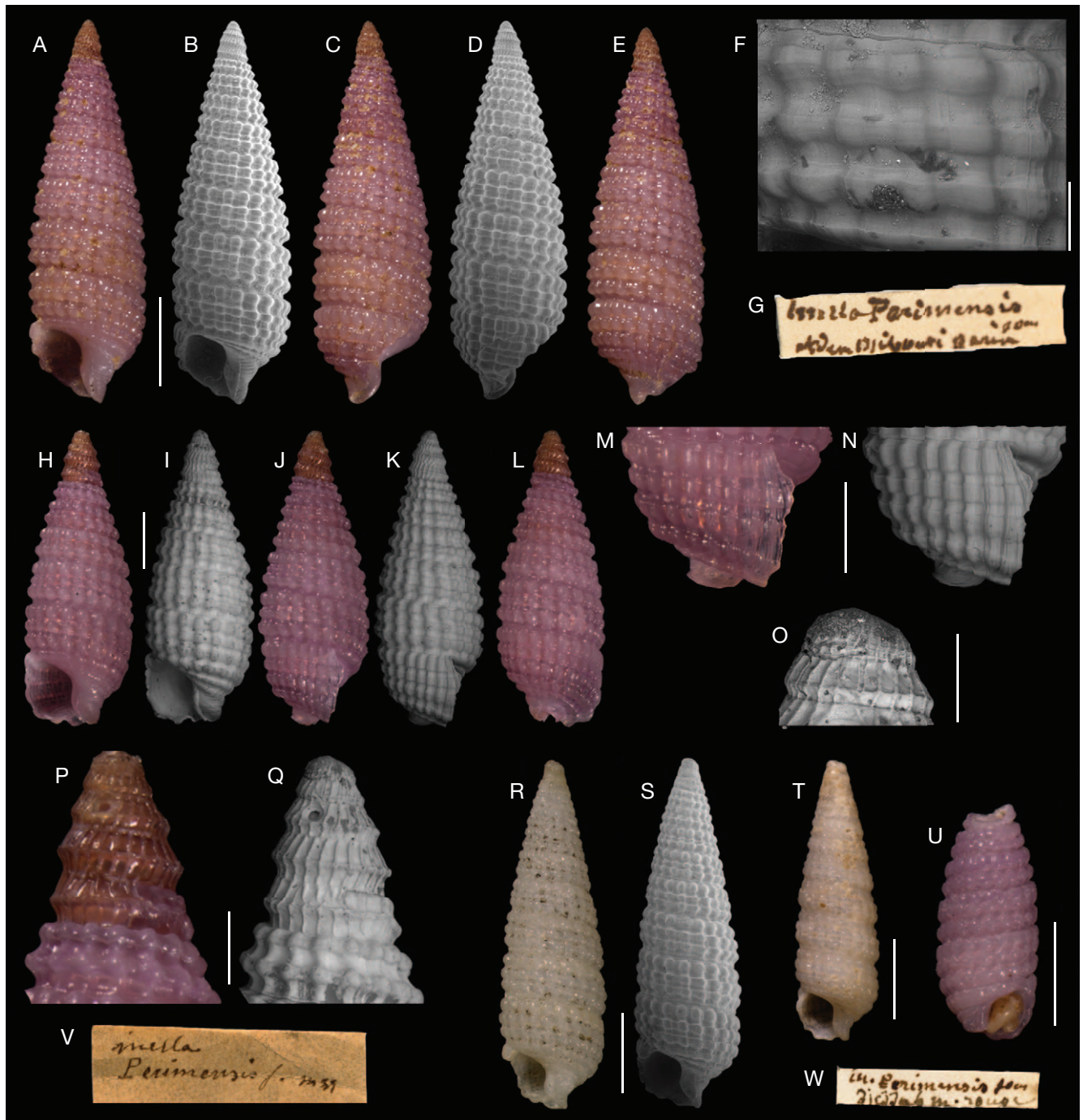


FIG. 61. — *Inella perimensis* Jousseaume, 1898: **A-F**, lectotype, MNHN-IM-2000-29269: front (**A**, **B**), side (**C**, **D**), back (**E**), microsculpture (**F**); **G**, original label lot MNHN-IM-2000-482; **H-Q**, paralectotype, MNHN-IM-2000-505, Jeddah, Saudi Arabia: front (**H**, **I**), side (**J**, **K**), back (**L**), peristome (**M**, **N**), first protoconch whorl (**O**), protoconch (**P-Q**); **R-S**, *Triphoridae* indet., paralectotype, MNHN-IM-2000-480: front; **T**, *Triphoridae* indet., paralectotype, MNHN-IM-2000-29271: front; **U**, *Cerithiopsidae* indet., paralectotype, MNHN-IM-2000-29270: front; **V-W**, original labels MNHN-IM-2000-505. Scale bars: A-E, R-U, 1 mm; F, P-Q, 0.2 mm; H-L, 0.5 mm; M, N, 0.4 mm; O, 0.1 mm.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1133; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa solida, alba, quandoque rarius rufo-maculata, elongato-turrita, subcylindrica, apice breviter et parum attenuata; spiraliter costata et striata; apice truncato; anfractibus persistentibus 12, convexiusculis, lente crescentibus, sutura vix impressa separatis; ultimo carinato, infra planulato, costis quinque filiformibus*

cincto; apertura subrotundata, ad suturam emarginata; canali brevi, recurvo. — Long. 11, lat. 4 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, sometimes with sparse red spots, turreted-elongated, subcylindrical, short and slightly slender apex; spirally ribbed and striated; truncated apex; whorls are always 12, slightly convex, slowly growing, separated by a slightly impressed suture; carinated last whorl, flattened below, with five

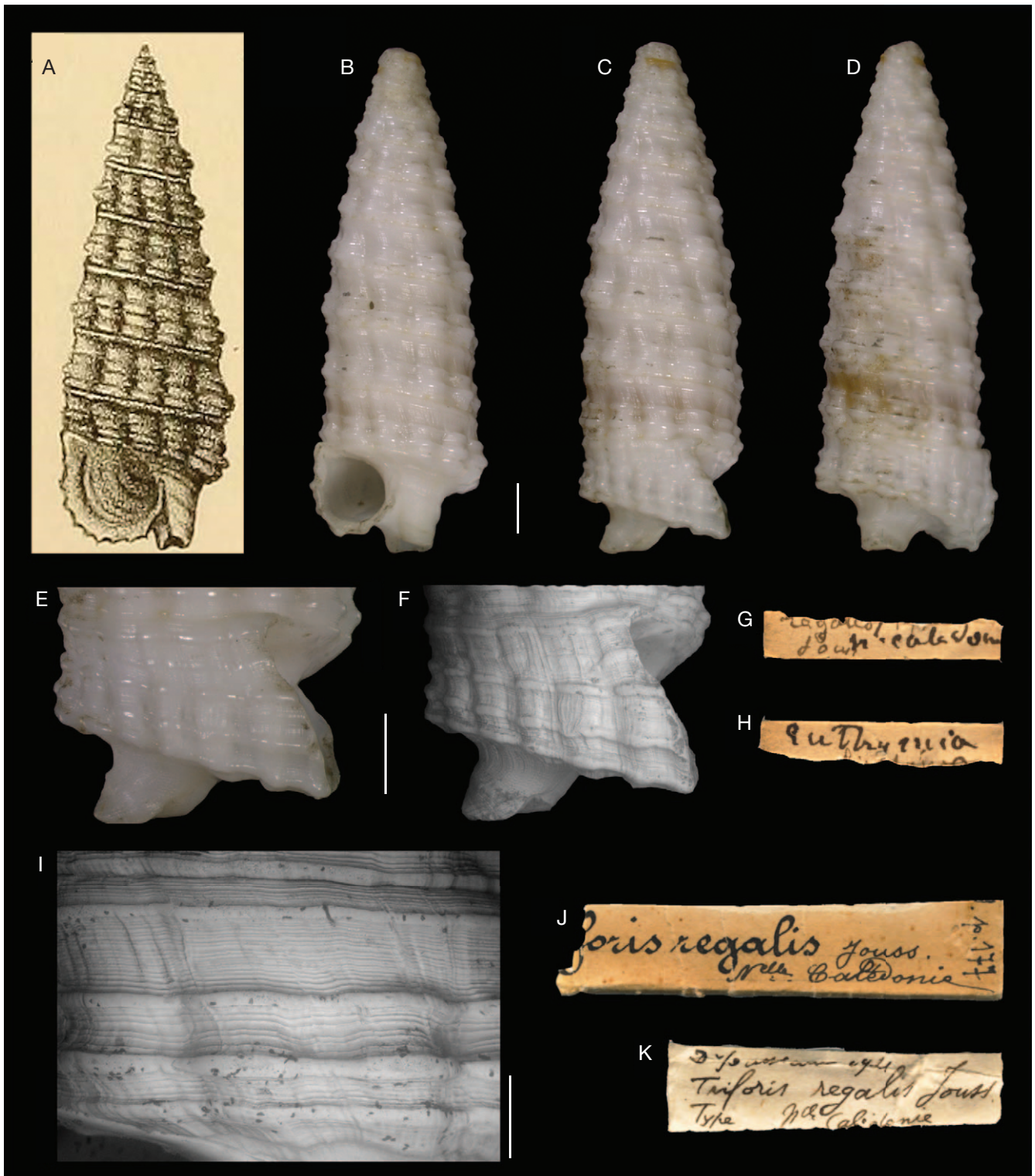


FIG. 62. — *Euthymia regalis* Jousseume, 1884, New Caledonia: **A**, original figure in Jousseume (1884); **B-F, I**, syntype, MNHN-IM-2000-1133; front (**B**), side (**C**), back (**D**), peristome (**E, F**), microsculpture (**I**). **G, H, J, K**, original labels. Scale bars: A-F, 1 mm; I, 0.4 mm.

filiform spiral cords; roundish aperture, bordered with the suture; short and curved siphon. — Length 11, diameter 4 mm.

DIAGNOSIS. — Shell cyrtocooid with flat sides. Syntype 10.0 mm high. Teleoconch of *c.* 10 whorls. Three spiral cords present of which the first one weaker and the third more prominent. Spiral cords with

very elongated tubercles at the intersection with rather orthocline axial ribs. A fine spiral thread present suprasuturally. Spiral microsculpture of fine threads. Peristome with additional cords below the first and second spiral cord, but not sufficiently complete in the syntype to judge the extent of the posterior sinus. Base with two additional cords of which the first weakly tubercled and the second smooth. Teleoconch white.

Inella rossiteri Jousseaume, 1884
(Fig. 63)

Inella rossiteri Jousseaume, 1884: 249, pl. 4, fig. 9.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Lectotype.** New Caledonia • MNHN-IM-2000-29272; here designated.

Paralectotypes. New Caledonia • MNHN-IM-2000-1246; 1 specimen; from type locality • Triphoridae indet.: MNHN-IM-2000-1313; 1 specimen.

ORIGINAL DESCRIPTION. — *Testa cylindrico-conica, ventrosula, rufo-lutescente; anfractibus 14 planis, sutura profunda, canaliculata, discretis; tuberculis albescentibus, contiguus et oppositis, in seriebus quatuor dispositis, muricatis; ultimo ad basin depresso, carinis octonis, moniliferis ornato; apertura subrotundata, lateraliter fissa, canali brevi, aperto, munita.* — Long. 5-6, lat. 1,5-1,7 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Cylindrical-conical shell, quite swollen, red-yellowish; 14 flattened whorls, separated by a deep canaliculated suture; tubercles are whitish, contiguous and opposing, arranged in four series, pointed; the last whorl is depressed at the base, adorned by eight granular spiral cords; roundish aperture, laterally fissured, with a short and open siphon. — Length 5-6, diameter 1.5-1.7 mm.

DIAGNOSIS. — Shell cyrtococonoid. Lectotype 5.2 mm high, paralectotype 5.9 mm high. Teleoconch of 8 whorls. Four spiral cords present, the third appearing on the third whorl, while the second on the sixth. First and fourth cords with tubercles at the intersection with rather prosocline axial ribs. Second and third cord initially with thin tubercles, becoming larger towards the last whorl. A smooth thread present suprasuturally. Peristome without additional spiral cords. Posterior sinus shallow. Base with four additional rather smooth spiral cords. Multispiral protoconch of c. 4 whorls with one spiral keel and axial riblets. First four teleoconch whorls light brown, then teleoconch progressively lighter. Protoconch light brown.

REMARKS. — The type series contained two lots. Lot MNHN-IM-2000-1313 contained a single triphorid fragment (Fig. 62R) which can be easily recognized not to belong to *Inella rossiteri* due to the presence of only three tubercled spiral cords instead of four, a very specific character of *I. rossiteri*, rarely found among the Triphoridae.

Obesula senilis Jousseaume, 1898
(Fig. 64)

Obesula senilis Jousseaume, 1898: 75, not illustrated.

TYPE LOCALITY. — Perim Island, Bab al-Mandab Strait, Yemen.

ADDITIONAL ORIGINAL LOCALITIES. — Djibouti.

TYPE MATERIAL. — **Lectotype.** • MNHN-IM-2000-29273; here designated.

Paralectotypes. Yemen • MNHN-IM-2000-501; 1 specimen; from type locality • MNHN-IM-2000-1588; 1 specimen; from type locality • Triphoridae indet., MNHN-IM-2000-29274; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa solida, ovato-conica, apice acuminata, albo et nigro zonata;*

anfr. circiter 12 primi albi, alteri seriebus tuberculorum tribus, mediana saepe minor, series antica alba, alterae castaneo-nigrae, granulae spiraliter et longitudinaliter funiculo junctas, ultimus quique seriebus granularum rugatus, series postice 2 fulvo nigra, pars antica alba, reticulata; apertura pyriformis, lateraliter fissa; canalis brevis recurvus. Long. 3^{mm}3; diam. 1^{mm}2.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, ovate-conical, acute apex, banded in white and brown; about 12 whorls, the first whorls are white, the other whorls with three series of tubercles, often the median series is smaller, the anterior series is white, the others are brownish, granules are spirally and longitudinally jointed to a small spiral cord, last whorl with five granular spiral cords, two posterior cords dark brown, anterior ones are white, reticulated; pyriform aperture, laterally fissured; short and curved siphon. Length 3.3 mm; diameter 1.2 mm.

DIAGNOSIS. — Shell cyrtococonoid. Lectotype 3.1 mm high. Teleoconch of 6 whorls. Three spiral cords present, the second appearing on the fifth whorl. First and third cords with tubercles at the intersection with rather orthocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Spiral microsculpture of fine threads. Posterior sinus shallow. Base with two additional weakly tubercled spiral cords, the second smaller. Protoconch damaged in the lectotype. First two teleoconch whorls white, other teleoconch whorls brown with the third spiral cord white. Tip of the siphonal canal and protoconch white.

REMARKS. — The type series contained a very worn specimen (Fig. 63I-M) which likely belongs to a different species due to the more ovoid shape, the colour pattern on the last whorl (with the first spiral cord white rather than pearly on brown background), the tubercles on this last whorl more elongated, and the lack of an intermediate second spiral cord. Therefore, se designated a lectotype of *O. senilis* to stabilize the nomenclature.

Mastonia servaini Jousseaume, 1884
(Fig. 65)

Mastonia servaini Jousseaume, 1884: 253 pl. 4, fig. 11.

TYPE LOCALITY. — Aden, Yemen [Red Sea, see Remarks].

TYPE MATERIAL. — **Syntype.** Yemen • MNHN-IM-2000-1381; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa subulata, elongato-turrita, solida, granulis biserialiter dispositis, ornata; anfractibus 14 irregulariter rapideque crescentibus, tuberculis seriei anterioris albis, seriei posterioris aurantiis, intervallis nigris separatis; ultimo costis quinque granulosus, cincto; apertura ovato-rotundata, lateraliter profunde fissa, canali brevi, clauso, recurvo, superne costis duabus ornato, munita.* — Long. 6, lat. 2 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Subulate shell, turreted-elongated, adorned by two series of granules; 14 rapidly and irregularly growing whorls, the anterior series of tubercles is white, the posterior one is orange, separated by brown intervals; last whorl with five granular spiral cords; ovate-rounded aperture, laterally deeply fissured, with a short, closed and curved siphon, above adorned by two spiral cords. — Length 6, diameter 2 mm.



FIG. 63. — *Inella rossiteri* Jousseaume, 1884, New Caledonia: **A**, original figure in Jousseaume (1884); **B-K**, lectotype, MNHN-IM-2000-29272: front (**B**, **C**), side (**D**, **E**), back (**F**), peristome (**G**, **H**), protoconch (**I**, **J**), microsculpture (**K**); **L**, **M**, original labels lot MNHN-IM-2000-29272; **N-Q**, Paralectotype, MNHN-IM-2000-1246: front (**N**), side (**O**), back (**P**), protoconch (**Q**); **R**, Triphoridae indet., paralectotype, MNHN-IM-2000-1313; front; **S-T**, original labels lot MNHN-IM-2000-1313. Scale bars: A-F, N-P, R, 1 mm; G, H, 0.4 mm; I, J, 0.1 mm; K, 0.2 mm; Q, 0.5 mm.

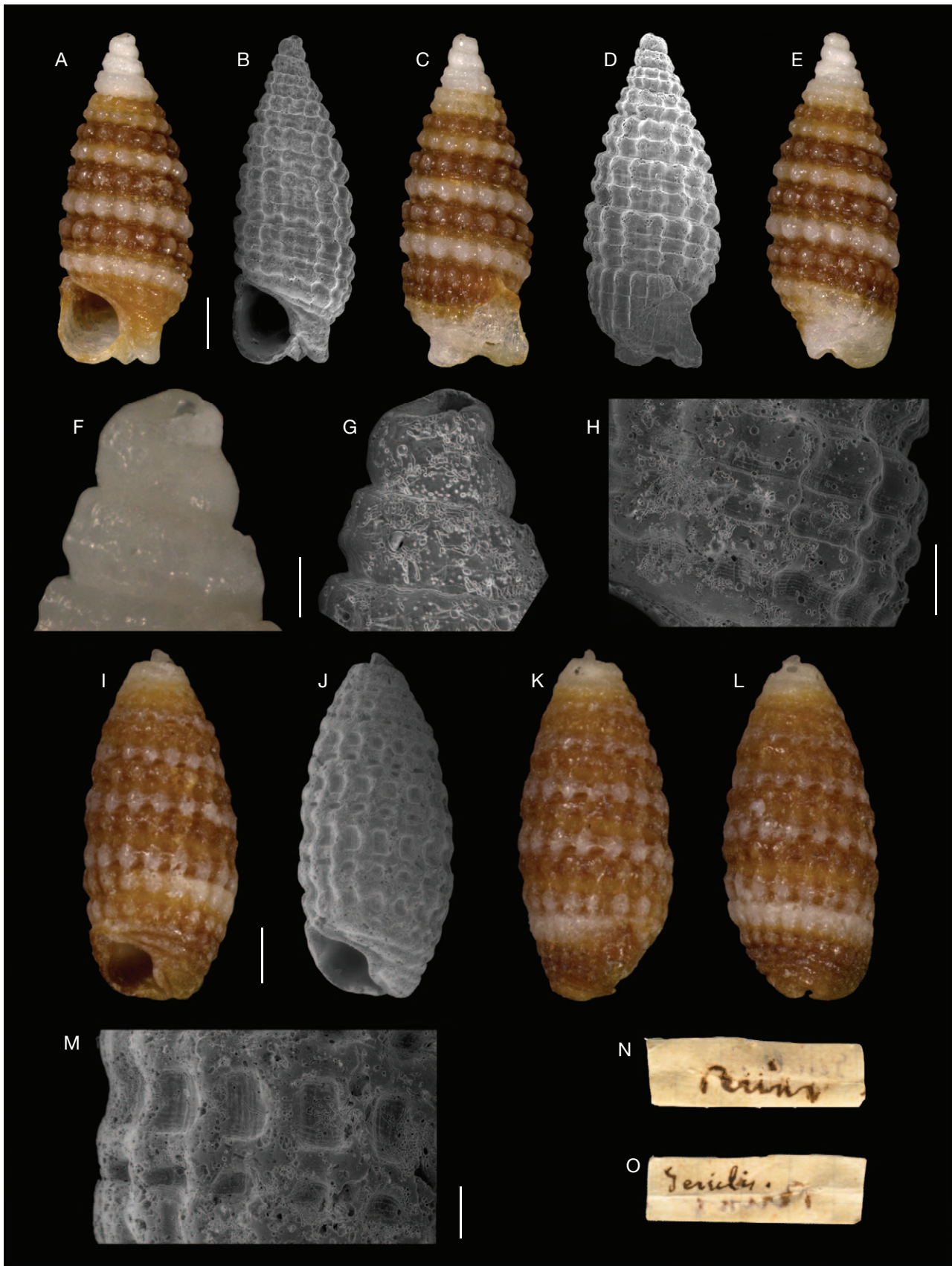


FIG. 64. — **A-H**, *Obesula senilis* Jousseaume, 1898, Perim Island, Bab al-Mandab Strait, Yemen, lectotype, MNHN-IM-2000-29273: front (**A**, **B**), side (**C**, **D**), back (**E**), apex (**F**, **G**), microsculpture (**H**); **I-M**, Triphoridae indet. (non *O. senilis*), Perim Island, Bab al-Mandab Strait, Yemen, paralectotype, MNHN-IM-2000-29274: front (**I**, **J**), side (**K**), back (**L**), microsculpture (**M**); **N**, **O**, original labels lot 2000-29273. Scale bars: A-E, 1 mm; F, G, 0.1 mm; H, M, 0.2 mm; I-L, 0.5 mm.

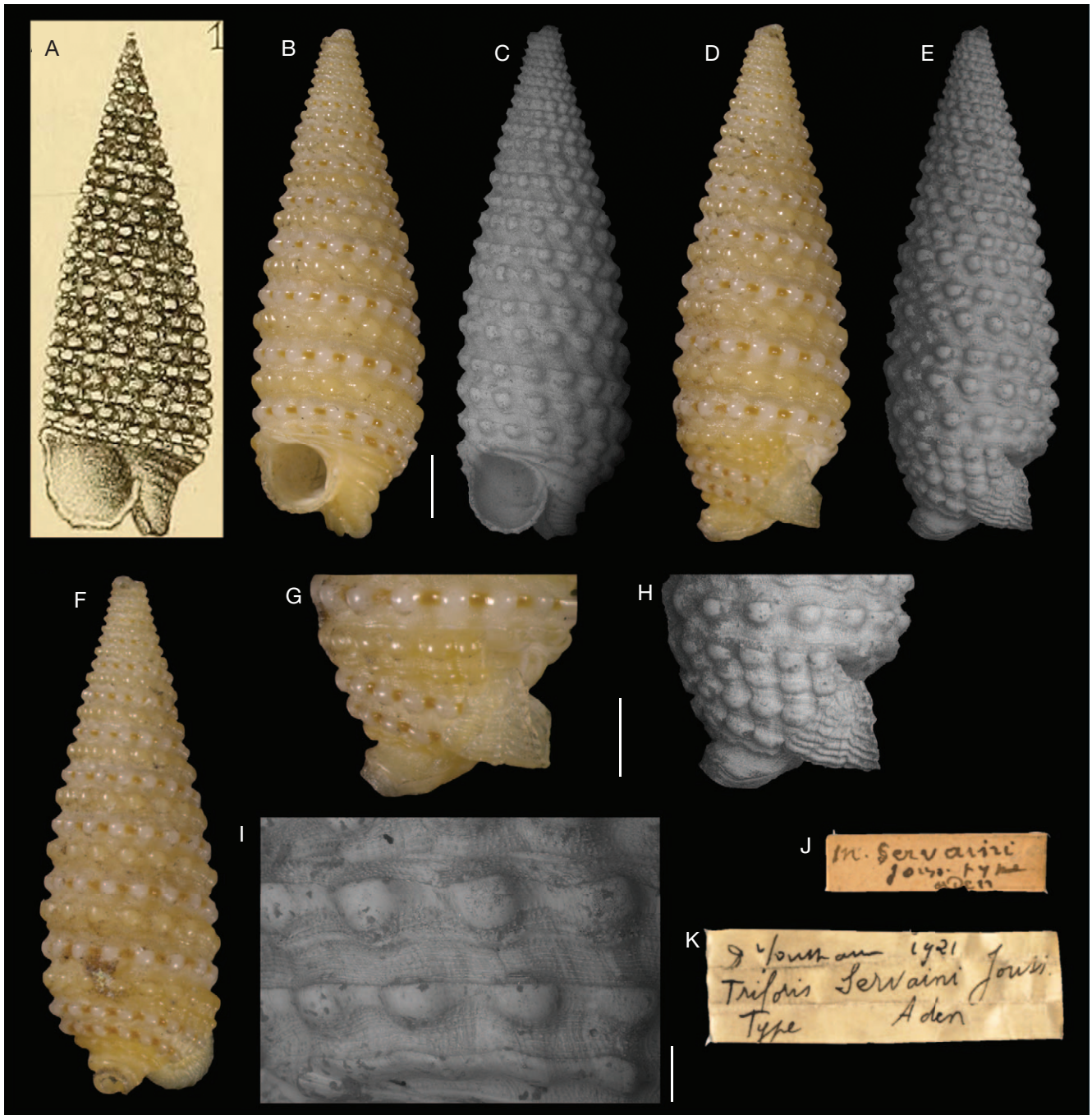


FIG. 65. — *Mastonia servaini* Jousseume, 1884, Aden, Yemen: **A**, original figure in Jousseume (1884); **B–I**, syntype MNHN-IM-2000-1381; front (**B**, **C**), side (**D**, **E**), back (**F**), peristome (**G**, **H**), microsculpture (**I**); **J**, **K**, original labels. Scale bars: B–F, 0.5 mm; G, H, 0.4 mm; I, 0.2 mm.

DIAGNOSIS. — Shell weakly cyrtconoid. Syntype 6.5 mm high. Teleoconch of *c.* 11 whorls. Three spiral cords present, the second appearing on the tenth whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord as a thin thread. Spiral microsculpture of weakly granulate fine threads. Posterior sinus shallow. Base with three additional spiral cords of which the first tubercled, the other two smooth. Protoconch missing in the syntype. Teleoconch light brown to yellow, the third spiral cord and the first spiral cord on the base have white tubercles and brown interspaces.

REMARKS. — Jousseume (1884) stated as type locality the “*environs d’Aden, sur la Mer Rouge*”. The British 19th century Aden Protectorate did not extend into the Red Sea, so we assume that the precise type locality is somewhere near the Bab al-Mandab Strait.

Euthymia tibialis Jousseume, 1884
(Fig. 66)

Euthymia tibialis Jousseume, 1884: 266, pl. 4, fig. 19.

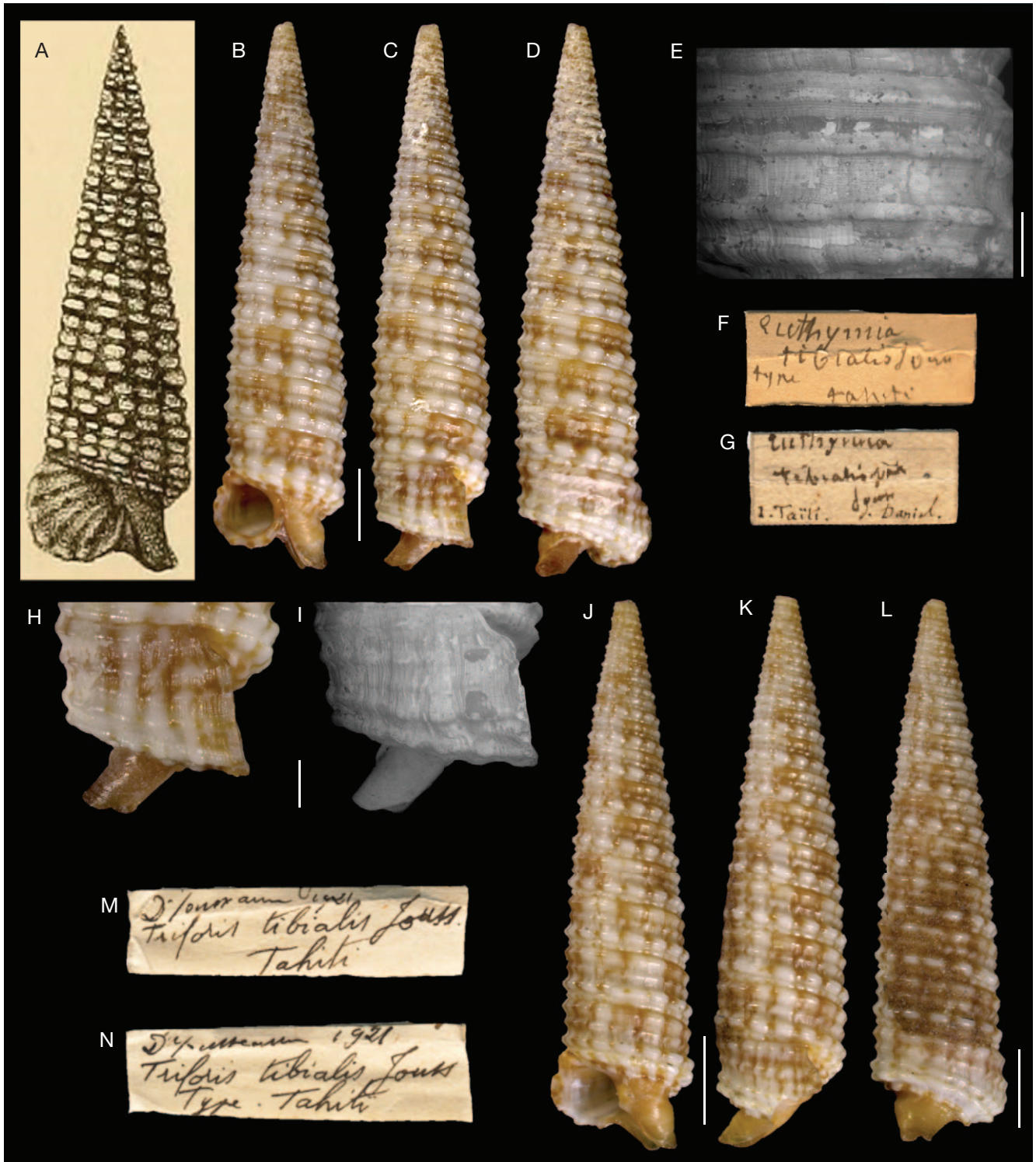


FIG. 66. — *Euthymia tibialis* Jousseaume, 1884, Tahiti: **A**, original figure in Jousseaume (1884); **B-E**, **H**, **I**, syntype 1, MNHN-IM-2000-498: front (**B**), side (**C**), back (**D**), microsculpture (**E**), peristome (**H**, **I**); **F**, **G**, **M**, **N**, original labels; **J-L**, syntype 2, MNHN-IM-2000-498: front (**J**), side (**K**), back (**L**). Scale bars: **B-D**, **J-L**, 2 mm; **E**, 0.4 mm; **H**, **I**, 0.5 mm.

TYPE LOCALITY. — Tahiti.

TYPE MATERIAL. — **Syntypes**. Tahiti • MNHN-IM-2000-498; 2 specimens; from type locality.

ORIGINAL DESCRIPTION. — *Testa pyramidalis-elongata, solida, alba, eleganterque lineis fuscis longitudinalibus, interruptis, ornata; costata et liris parvis inaequalibus quadricincta; anfractibus persistentibus 17, sutura fere inconspicua separatis; ultime carinato, inferne complanato, costis quinque filiformibus, cincto; apertura, subrotundata; peristomate*

patulescente, obtusulo, rufo, alboque variegato; canali rufescente, elongato recurvo, minutissimeque striato. — long. 13, lat. 3 millim.
[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Pyramidal-elongated shell, solid, white, finely adorned by longitudinal and interrupted brown lines; ribbed and with four unequal small spiral cords; whorls are always 17, separated by a usually faint suture; carinated last whorl, inferiorly flattened, with five filiform spiral cords; roundish aperture; large peristome, slightly obtuse, coloured in red and whitish; reddish siphon, elongated and curved, finely striated. — length 13, diameter 3 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntypes 12.2 and 12.3 mm high. Teleoconch of *c.* 15 whorls. Three spiral cords present, the second cord on the fifth whorl. A fourth suprasutural cord visible. Spiral cords rather smooth or weakly undulate, the more prominent third cord bears obtuse tubercles. The other cords tubercled near the peristome. Microsculpture of fine spiral threads. Peristome with an additional cord below the second spiral cord. Posterior sinus shallow. Base with two additional weakly tubercled spiral cords. Protoconch missing in the syntypes. Teleoconch with brown flammulae on a white background. Siphonal canal brown.

Mastonia tricolor Jousseaume, 1884
(Fig. 67)

Mastonia tricolor Jousseaume, 1884: 258, pl. 4, fig. 13.

TYPE LOCALITY. — New Caledonia.

TYPE MATERIAL. — **Syntype.** New Caledonia • MNHN-IM-2000-1397; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa elongato-turrita, solida, nitidiuscula, flavescens ac zonula alba alteraque atro-rufescente cincta; anfractibus 14-15 planiusculis, sat regulariter crescentibus (primi rufuli, laevigati, caeteri tuberculis triseriatim dispositis, cincti; tuberculorum series prima alba, secunda et tertia aequales, luteae), sutura sat profunda, discretis; ultimo costis quinque moniliformibus, ornati; apertura sub-ovalis, lateraliter fissas, canali, nigro, brevi, recurvo, superne uncostato, armata. — Long. 6, lat. 1.5 millim.*
[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Turreted-elongated shell, solid, slightly bright, yellow on one side of the white bands and dark red on the other side; from 14 to 15 slightly flattened whorls, quite regularly growing (first whorls are reddish, smooth and with three series of tubercles; the first series of tubercles is white, the second and third series are equal, yellow), separated by a quite deep suture; last whorl adorned by five tubercled spiral cords; subovate aperture, laterally fissured, with a short, brown, curved siphon which bears a single rib above. — Length 6, diameter 1.5 mm.

DIAGNOSIS. — Shell conical with flat sides. Syntype 6.0 mm high. Teleoconch of *c.* 11 whorls. Three spiral cords present, the second appearing on the ninth whorl. A fourth suprasutural cord visible. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing thin tubercles. Peristome with additional cords below the second and third spiral cords. Base with three additional tubercled spiral cords. Teleoconch yellowish with the first spiral cord white and brown suprasutural cord. Siphonal canal brown.

REMARK. — The original description suggests the existence of other syntypes (e.g. in the Museum of Bordeaux) whose presence and status we have not ascertained.

Mastonia tulipa Jousseaume, 1898
(Fig. 68)

Mastonia tulipa Jousseaume, 1898: 73, not illustrated.

ORIGINAL LOCALITIES. — Aden, Perim Island (Bab al-Mandab Strait, Yemen), Djibouti.

TYPE MATERIAL. — **Syntypes.** Djibouti • MNHN-IM-2000-494; 10 specimens; “Aden, Djibouti”. Yemen • MNHN-IM-2000-495; 6 specimens; Aden • MNHN-IM-2000-1580; 2 specimens; Perim Island, Bab al-Mandab Strait, Yemen.

ORIGINAL DESCRIPTION. — *Testa solida, subulata, elongato-turrita, fulvo et rubello spiraliter zonata, granulis triseriatim dispositis cincta, mediana minor alterae aequales; anfr. 14 15 sat regulariter crescenti, sutura profunda distincta separati, primi fere laevigati, uncarinati, sequentes seriebus tuberculorum (antice 2 fulvis altera rubella) ornati, ultimus costis quinque granulosis (medianis 3 fulvis alteris rubellis) rugatus; apertura rotundato-ovalis lateraliter profunde fissas; canalis brevis, rubellus, recurvus. Long. 3mm; diam. 1mm2.*
[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Solid shell, subulate, turreted-elongated, spirally banded in yellow and reddish, with three granular spiral cords, the middle one smaller, the others equal in size; from 14 to 15 quite regularly growing whorls, separated by a distinct and deep suture, first whorls slightly smooth, uncarinated, subsequent whorls adorned by series of tubercles (the anterior two series are brown, the other series reddish); last whorl with five granular spiral cords (three median brown cords, the other cords are reddish); ovate-rounded aperture, laterally deeply fissured; short, reddish and curved siphon. Length 3 mm; diameter 1.2 mm.

DIAGNOSIS. — Shell conical with flat sides. Illustrated syntypes 3.6 and 5.7 mm high. Teleoconch of 11 whorls. Three spiral cords present, the second appearing on the seventh whorl. First and third cords with tubercles at the intersection with rather prosocline axial ribs. Second cord initially as a fine thread, but later developing tubercles. Peristome without additional spiral cords. Posterior sinus relatively deep. Base with three additional spiral cords of which the first tubercled, the other two smooth. Multispiral protoconch of five whorls with one spiral keel; axial riblets departing from the suture but not reaching the spiral keel apically. Protoconch sculpture more obsolete on its second and third whorls. Teleoconch orange to light brown with the first spiral cord white. Protoconch whitish to pinkish.

Inella xystica Jousseaume, 1884
(Fig. 69)

Inella xystica Jousseaume, 1884: 247, pl. 4, fig. 8.

TYPE LOCALITY. — Madagascar.

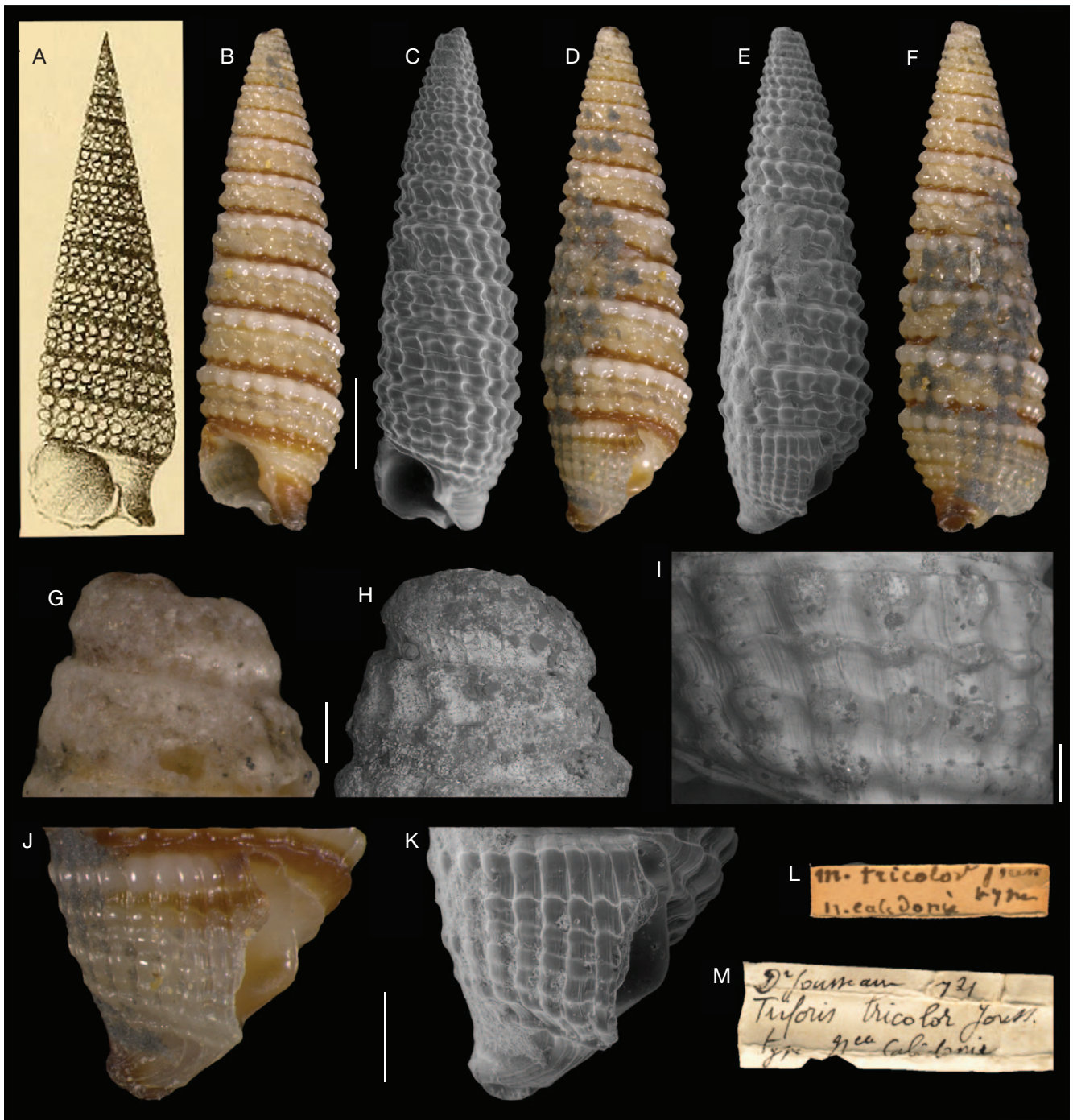


FIG. 67. — *Mastonia tricolor* Jousseume, 1884, New Caledonia: **A**, original figure in Jousseume (1884); **B-K**, syntype, MNHN-IM-2000-1397; front (**B**, **C**), side (**D**, **E**), back (**F**), apex (**G**, **H**), microsculpture (**I**), peristome (**J**, **K**); **L**, **M**, original labels. Scale bars: B-F, 1 mm; G, H, 0.1 mm; I, 0.2 mm; J, K, 0.4 mm.

TYPE MATERIAL. — **Syntype**. Madagascar • MNHN-IM-2000-491; 1 specimen; from type locality.

ORIGINAL DESCRIPTION. — *Testa conico-elongata, cancellata, rufo-nigricante; anfractibus fere 14 vel 15 planis, tuberculorum seriebus tribus albescentibus-ornatis, sutura profunda, canaliculata, distinctis; intervallo tuberculorum toruloso, rufoque tincto; ultimo ad basin planulato, costis quinque moniliferis, ornato; apertura rotundata, lateraliter late fissis; canali subelongato, recurvo, superne striato.* — Long. 13, lat. 4 millim.

[Latin diagnosis followed by a discussion in French]

TRANSLATION OF THE LATIN TEXT. — Conical-elongated shell, cancellate, red-brownish; usually from 14 to 15 flattened whorls, adorned by three series of whitish tubercles and separated by a deep and canaliculated suture; the interspace between tubercles is coloured in reddish; last whorl flattened at the base, adorned by fine granular spiral cords; rounded aperture, laterally and largely fissured; slightly elongated, curved siphon, striated above. — Length 13, diameter 4 mm.

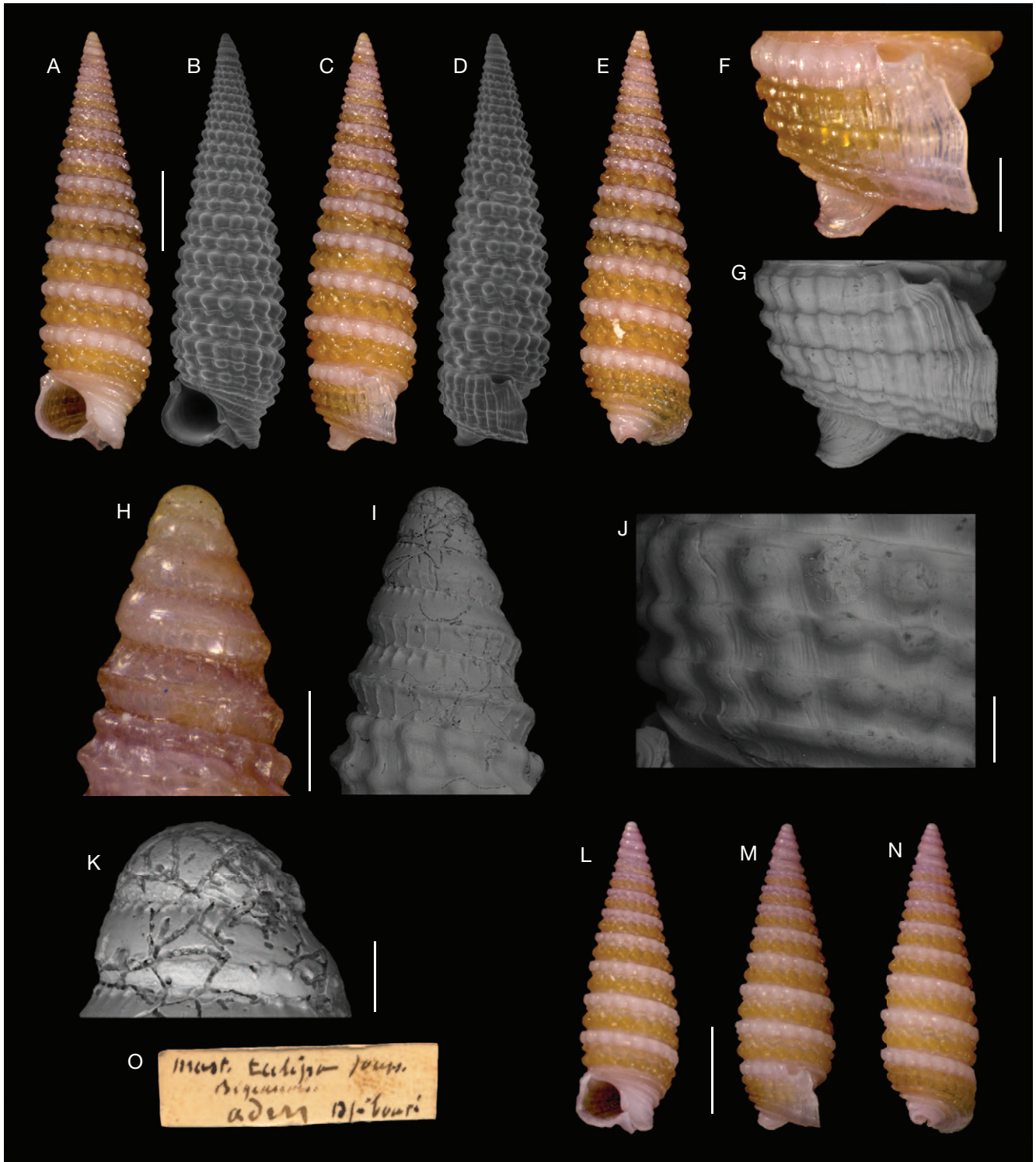


FIG. 68. — *Mastonia tulipa* Jousseaume, 1898, “Aden, Djibouti”: **A–K**, syntype 1, MNHN-IM-2000-494: front (**A, B**), side (**C, D**), back (**E**), peristome (**F, G**), protoconch (**H, I**), microsculpture (**J**), first protoconch whorl (**K**); **L–N**, syntype 2, MNHN-IM-2000-494: front (**L**), side (**M**), back (**N**); **O**, original label. Scale bars: A–E, L–N, 1 mm; F, G, 0.4 mm; H–J, 0.2 mm; K, 0.05 mm.

DIAGNOSIS. — Shell cyrtocooid with flat sides. Syntype 11.2 mm high. Teleoconch of *c.* 11 whorls. Three spiral cords present, the second appearing on the fifth whorl. First two cords with tubercles at the intersection with orthocline axial ribs. Second cord initially as

a fine thread, but later developing tubercles. Peristome without additional spiral cords. Posterior sinus shallow. Base with two tubercled additional spiral cords. Protoconch missing in the syntype. Shell dark brown with light brown to white tubercles. Siphonal canal light brown.

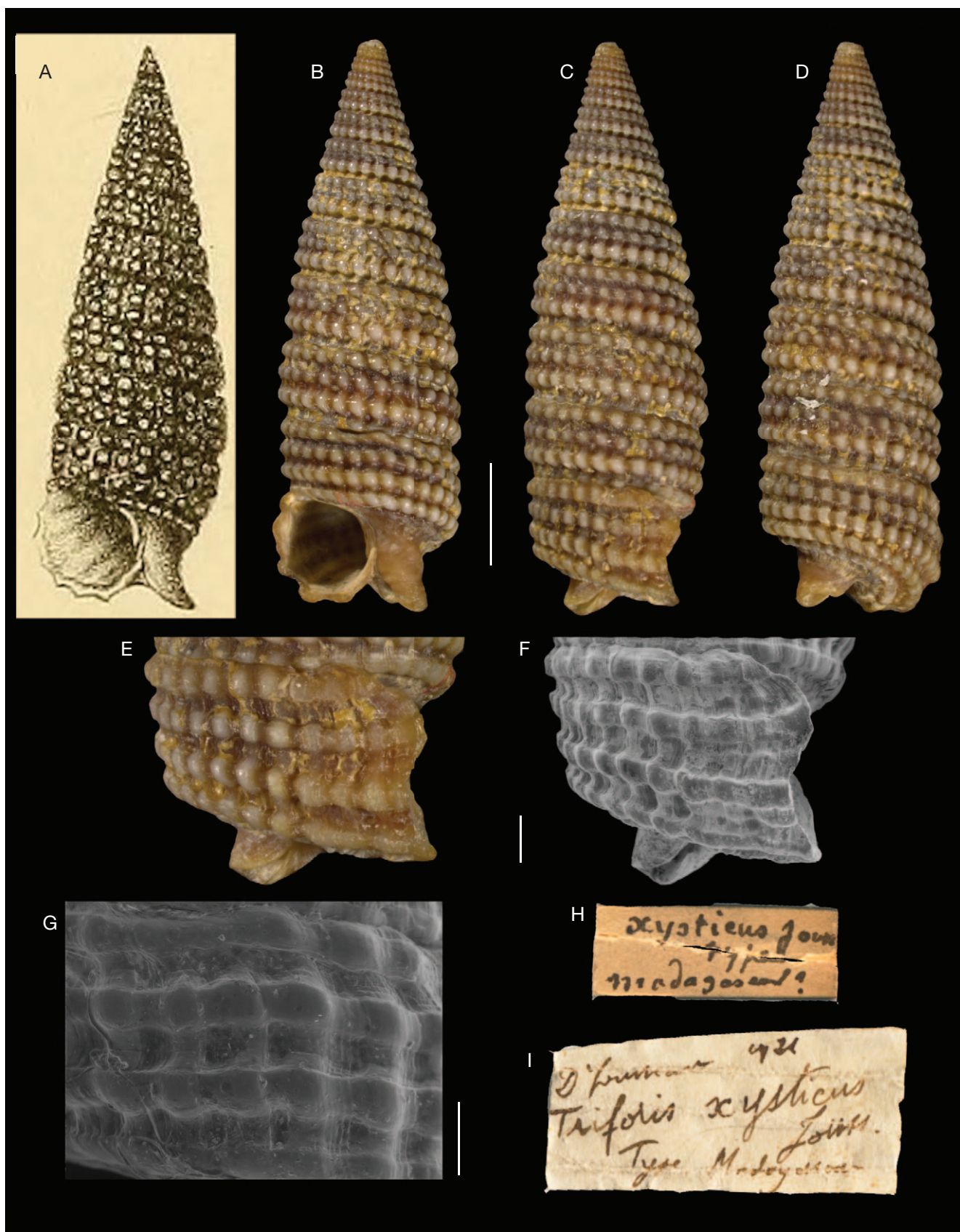


FIG. 69. — *Inella xystica* Jousseaume, 1884, Madagascar: **A**, original figure in Jousseaume (1884); **B-G**, syntype: MNHN-IM-2000-491: front (**B**), side (**C**), back (**D**), peristome (**E**, **F**), microsculpture (**G**); **H**, **I**, original labels. Scale bars: B-D, 2 mm; E, F, 0.5 mm; G, 0.4 mm.

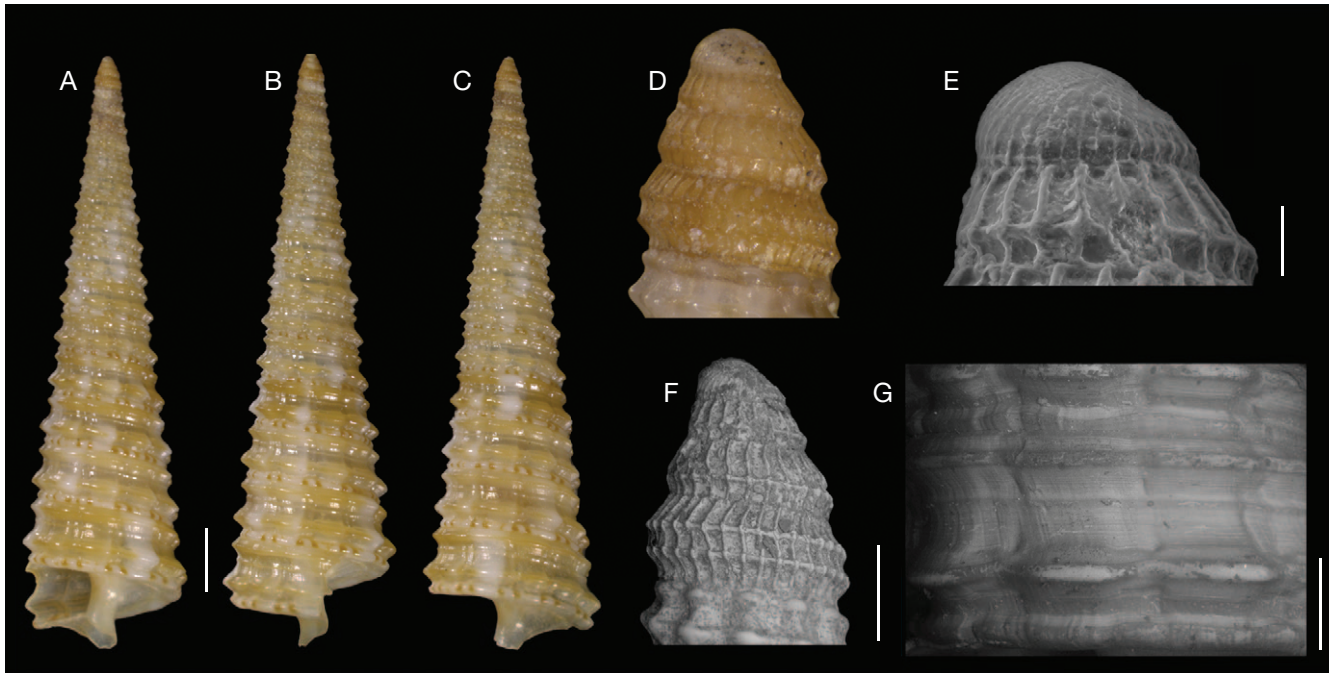


FIG. 70. — *Euthymella kosugei* Marshall, 1983, Comoro Islands, paratype, MNHN-IM-2000-384: front (A), side (B), back (C), protoconch (D, F), first protoconch whorl (E), microsculpture (G). Scale bars: A–C, 1 mm; D, F, G, 0.2 mm; E, 0.05 mm.

SPECIES DESCRIBED BY B. A. MARSHALL

Bruce A. Marshall described 21 species of Triphoridae, most of them in his seminal work on South Australian species (1983). In the MNHN, paratypes of a single species are deposited: *Euthymella kosugei*.

Euthymella kosugei Marshall, 1983 (Fig. 70)

Euthymella kosugei Marshall, 1983: 52, figs 22A–C.

TYPE LOCALITY. — Aoki Harbour reef, west coast of Malaita Island, Solomon Islands.

TYPE MATERIAL. — **Holotype**. AMS C.110711 (not seen).

Paratypes. **Comoro Is.** • MNHN-IM-2000-383; 1 specimen; Geyser Bank, Comoro Is.; 12°22.04'S, 46°26.9'E; (gold coated, illustrated in fig. 22B in Marshall (1983)) • MNHN-IM-2000-384; 1 specimen; Leven Bank, Comoro Is. (12°32'S, 47°40.2'E) • Additional four paratypes in AMS (*vide* Marshall (1983); not seen).

REMARK. — The original description and imaging were excellent. We offer here only a colour image of a paratype and some sculpture details missing in the original work.

SPECIES DESCRIBED BY X. MONTROUZIER

Xavier Montrouzier described a single triphorid whose type specimen is in the MNHN.

Cerithium connatum Montrouzier, 1862 (Fig. 71)

Cerithium connatum Souverbie & Montrouzier, 1862: 236, pl. 9, fig. 4.

TYPE LOCALITY. — New Caledonia.

MATERIAL EXAMINED. — **New Caledonia** • MNHN-IM-2000-477; 3 specimens; from type locality.

ORIGINAL DESCRIPTION. — *Test. sinistrorsa cylindrico-conica, subulata, gracilis, subvinosa; anfr. numerosis, dense connatis, planis, carinis 3–4 cingulatis; interstitiis punctis longitudinalibus, subvalidis, suboblique sculptis; apert. parva; labro recto, acuto, canali brevi subrecurso, margine sinistrali decussato. Long. 13–15, lat. 3–4 mill.*

TRANSLATION OF THE LATIN TEXT. — Left-handed, cylindrical-conical shell, subulate, slender, reddish; numerous whorls, densely arranged, flattened, with 3–4 spiral cords; interspaces are sculptured with longitudinal thick and slightly oblique dots; small aperture; straight lip, acute, short and slightly curved siphon, decussated at the left margin. Length 13–15, diameter 3–4 mm.
[Latin diagnosis followed by a discussion in French]

DIAGNOSIS. — Shell very elongated with flat sides. Illustrated specimens 19.2 and 22.8 mm high. Teleoconch of *c.* 21 and *c.* 22 whorls. Three spiral cords present, the second appearing between the fifth and eighth whorl. Spiral cords smooth with orthocline axial ribs in the interspaces. Base with two additional smooth spiral cords. Protoconch missing in the examined specimens. Teleoconch brown.

REMARKS. — Montrouzier wrote that the specimens he studied were in the museum of Bordeaux. The MNHN contains a lot with three specimens, all adults. Montrouzier wrote that he analysed indeed three specimens, but one clearly juvenile that was illustrated in his figure 4 on plate 9. Because of the explicit statement of Montrouzier

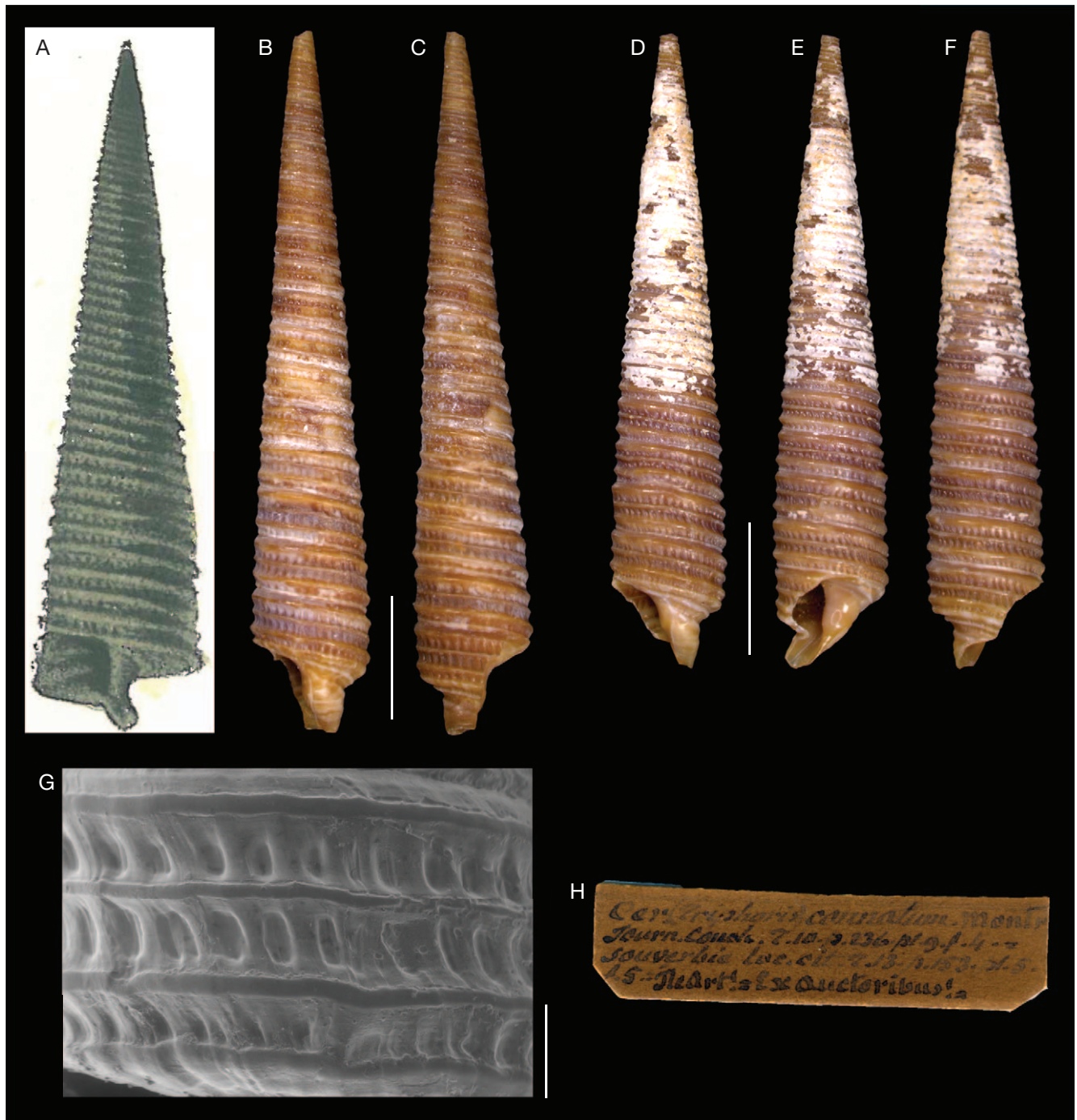


FIG. 71. — *Cerithium connatum* Mountrouzier, 1862, New Caledonia: **A**, original figure in Mountrouzier (1862); **B**, **C**, **G**, specimen 1, MNHN-IM-2000-477: front (**B**), side (**C**), microsculpture (**G**); **D**–**F**, specimen 2, MNHN-IM-2000-477: front (**D**), side (**E**), back (**F**); **H**, original label. Scale bars: B–F, 4 mm; G, 0.5 mm.

and the fact that no juveniles are present in the lot in the MNHN, we do not consider these specimens belonging to the type series, although apparently belonging to Mountrouzier's collection.

SPECIES DESCRIBED BY R. SELLI

Raimondo Selli described a fossil triphorid for the Red Sea Quaternary, *Triphora gortanii* Selli, 1974, and introduced the name *Triphora lamyi* which is, however, unavailable.

Triphora (Mastonia) lamyi Selli, 1974 (Fig. 72)

Triphora (Mastonia) lamyi Selli, 1974: 332, plate XIX, figs 10–12.

TYPE MATERIAL. — **Syntypes**. **Egypt** • MNHN-IM-2000-486; 2 specimens; Gulf of Suez.

REMARKS. — Selli (1974) cited this new name in his treatment of *Mastonia maenades* Jousseume, 1898. He recognized that his speci-

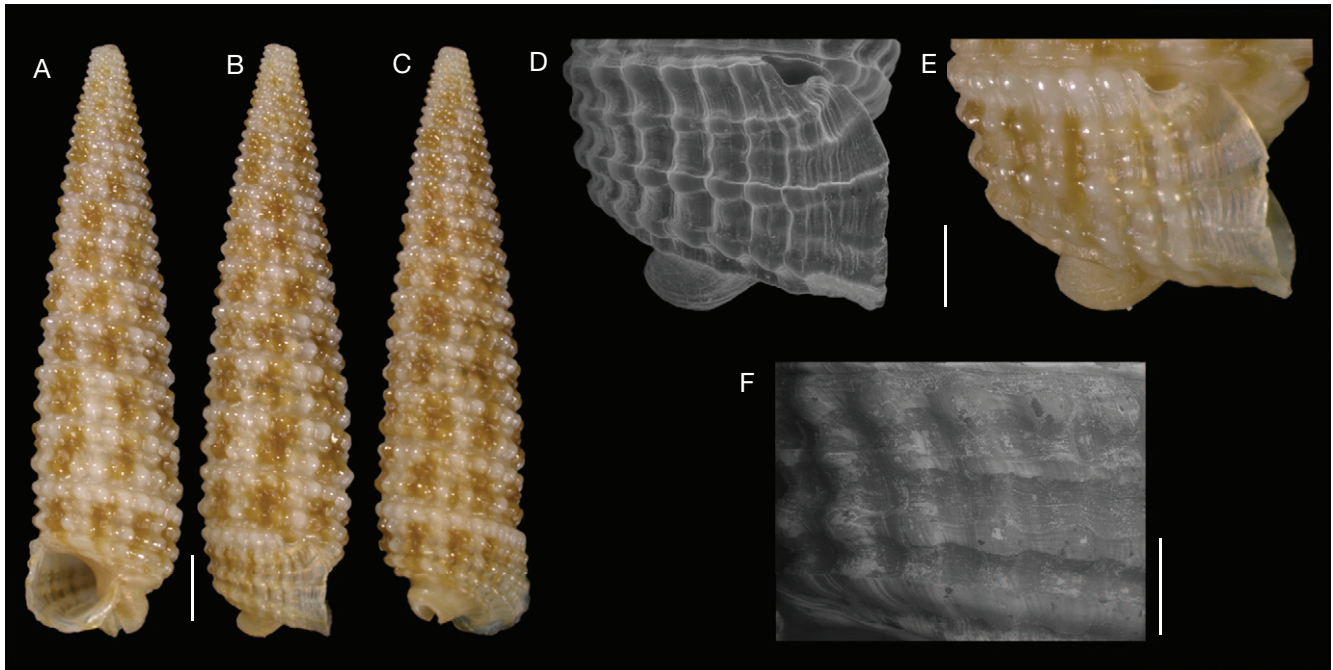


FIG. 72. — *Triphora lamyi* Sell, 1973, Gulf of Suez, Egypt, MNHN-IM-2000-486: front (A), side (B), back (C), peristome (D, E), microsculpture (F). Scale bars: A–C, 1 mm; D, E, 0.5 mm; F, 0.4 mm.

mens could not be separated from those illustrated by Lamy (1938) with this name, highlighting that Jousseume did not illustrate them and that Lamy himself had doubts on his own identifications. He then stated that “if” the holotype was lost or did not correspond with Lamy’s figure, then he would have named his specimens *T. (Mastonia) lamyi*. Consequently, at the time of his publication, Sell was not yet using this name as valid for a taxon and this name is thus unavailable according to art. 11.5 of ICZN (1999). In any case, a comparison of the specimens of *T. lamyi* with those of *M. moenades* did not enable us to recognize any significant difference.

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Authors’ contribution

PGA conceived the study, PGA, PAJB and BS curated the taxonomic content, DDF photographed the specimens and translated the original descriptions from Latin, MA prepared the figures.

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