

The dangers of inadequate literature search
to nomenclatural stability: the case of the *nomina*
Hyla quoyi Bory de Saint-Vincent, 1828 and
Hyla prasina Burmeister, 1856
(Amphibia: Anura)

Henrique C. COSTA &
Diego J. SANTANA



DIRECTEUR DE LA PUBLICATION : Bruno David
Président du Muséum national d'Histoire naturelle

RÉDACTRICE EN CHEF / *EDITOR-IN-CHIEF*: Laure Desutter-Grandcolas

ASSISTANTS DE RÉDACTION / *ASSISTANT EDITORS*: Anne Mabilie (zoosyst@mnhn.fr), Emmanuel Côté

MISE EN PAGE / *PAGE LAYOUT*: Anne Mabilie

COMITÉ SCIENTIFIQUE / *SCIENTIFIC BOARD*:

James Carpenter (AMNH, New York, États-Unis)
Maria Marta Cigliano (Museo de La Plata, La Plata, Argentine)
Henrik Enghoff (NHMD, Copenhague, Danemark)
Rafael Marquez (CSIC, Madrid, Espagne)
Peter Ng (University of Singapore)
Norman I. Platnick (AMNH, New York, États-Unis)
Jean-Yves Rasplus (INRA, Montferrier-sur-Lez, France)
Jean-François Silvain (IRD, Gif-sur-Yvette, France)
Wanda M. Weiner (Polish Academy of Sciences, Cracovie, Pologne)
John Wenzel (The Ohio State University, Columbus, États-Unis)

COUVERTURE / *COVER*:

Boana prasina (Burmeister, 1856) specimen. Photograph: Diego Santana.

Zoosystema est indexé dans / *Zoosystema is indexed in*:

- Science Citation Index Expanded (SciSearch®)
- ISI Alerting Services®
- Current Contents® / Agriculture, Biology, and Environmental Sciences®
- Scopus®

Zoosystema est distribué en version électronique par / *Zoosystema is distributed electronically by*:

- BioOne® (<http://www.bioone.org>)

Les articles ainsi que les nouveautés nomenclaturales publiés dans *Zoosystema* sont référencés par /
Articles and nomenclatural novelties published in Zoosystema are referenced by:

- ZooBank® (<http://zoobank.org>)

Zoosystema est une revue en flux continu publiée par les Publications scientifiques du Muséum, Paris / *Zoosystema is a fast track journal published by the Museum Science Press, Paris*

Les Publications scientifiques du Muséum publient aussi / *The Museum Science Press also publish*:
Adansonia, Anthropozoologica, European Journal of Taxonomy, Geodiversitas, Naturae.

Diffusion – Publications scientifiques Muséum national d'Histoire naturelle
CP 41 – 57 rue Cuvier F-75231 Paris cedex 05 (France)
Tél.: 33 (0)1 40 79 48 05 / Fax: 33 (0)1 40 79 38 40
diff.pub@mnhn.fr / <http://sciencepress.mnhn.fr>

© Publications scientifiques du Muséum national d'Histoire naturelle, Paris, 2018
ISSN (imprimé / *print*): 1280-9551 / ISSN (électronique / *electronic*): 1638-9387

PHOTOCOPIES:

Les Publications scientifiques du Muséum adhèrent au Centre Français d'Exploitation du Droit de Copie (CFC), 20 rue des Grands Augustins, 75006 Paris. Le CFC est membre de l'*International Federation of Reproduction Rights Organisations (IFRRO)*. Aux États-Unis d'Amérique, contacter le *Copyright Clearance Center*, 27 Congress Street, Salem, Massachusetts 01970.

PHOTOCOPIES:

The Publications scientifiques du Muséum *adhere to the* Centre Français d'Exploitation du Droit de Copie (CFC), 20 rue des Grands Augustins, 75006 Paris. *The CFC is a member of International Federation of Reproduction Rights Organisations (IFRRO). In USA, contact the Copyright Clearance Center, 27 Congress Street, Salem, Massachusetts 01970.*

The dangers of inadequate literature search to nomenclatural stability: the case of the *nomina Hyla quoyi* Bory de Saint-Vincent, 1828 and *Hyla prasina* Burmeister, 1856 (Amphibia: Anura)

Henrique C. COSTA

Programa de Pós-Graduação em Zoologia, Universidade Federal de Minas Gerais,
Avenida Antônio Carlos 6627, Pampulha, Belo Horizonte, 31270-90, MG (Brazil)

Diego J. SANTANA

Laboratório de Zoologia, Instituto de Biociências,
Universidade Federal de Mato Grosso do Sul, 79070-900, Campo Grande, MS (Brazil)

Submitted on 10 April 2018 | Accepted on 20 July 2018 | Published on 14 November 2018

urn:lsid:zoobank.org:pub:757B0245-ADE3-41CD-B7F7-923126A6664F

Costa H. C. & Santana D. J. 2018. — The dangers of inadequate literature search to nomenclatural stability: the case of the *nomina Hyla quoyi* Bory de Saint-Vincent, 1828 and *Hyla prasina* Burmeister, 1856 (Amphibia: Anura). *Zoosystema* 40 (22): 493499. <https://doi.org/10.5252/zoosystema2018v40a22>. <http://zoosystema.com/40/22>

KEY WORDS
Amphibia,
Anura,
nomenclatural act,
Principle of Priority,
synonymy.

ABSTRACT

Ohler & Dubois (2018) argued that Article 23.9 of the *Code* cannot be used to reject the name *Hyla quoyi* Bory de Saint-Vincent, 1828 in favor of its junior synonym *Hyla prasina* Burmeister, 1856. However, their statement was based on an insufficient literature search erroneously suggesting that *H. prasina* had been rarely used. We discuss this issue and give recommendations on searches in electronic bibliographical databases.

RÉSUMÉ

Les dangers d'une recherche bibliographique insuffisante pour la stabilité nomenclaturale: le cas des noms Hyla quoyi Bory de Saint-Vincent, 1828 et Hyla prasina Burmeister, 1856 (Amphibia: Anura).

Ohler & Dubois (2018) ont affirmé que l'article 23.9 du *Code* ne peut pas être utilisé pour rejeter le nom *Hyla quoyi* Bory de Saint-Vincent, 1828 en faveur de son synonyme plus récent *Hyla prasina* Burmeister, 1856. Cependant, leur déclaration était basée sur une recherche insuffisante dans la littérature suggérant à tort que *H. prasina* n'avait été que rarement utilisé. Nous discutons ce problème et donnons des recommandations sur les recherches dans les bases de données bibliographiques électroniques.

MOTS CLÉS
Amphibia,
Anura,
acte nomenclatural,
principe de priorité,
synonymie.

INTRODUCTION

Caramaschi & Niemeyer (2010) stated that the name *Hyla quoyi* Bory de Saint Vincent, 1828 should be considered a *nomen oblitum* under Article 23.9 of the International Code of Zoological Nomenclature (ICZN 1999) (hereafter “the *Code*”), and its “well established” junior synonym *Hyla prasina* Burmeister, 1856 should be a *nomen protectum*. In a paper recently published in this journal, Ohler & Dubois (2018) argued that the nomenclatural act of reversal of precedence proposed by Caramaschi & Niemeyer (2010) was invalid because they had failed to meet the criteria of the *Code*.

For the nomenclatural act proposing the reversal of precedence between *Hyla quoyi* and *H. prasina* to be properly implemented, it would be necessary to explicitly cite at least 25 published works by at least 10 authors in the last 50 years within a span of not less than 10 years (Article 23.9.1.2). In their search, Ohler & Dubois (2018) found only 11 references, suggesting that *Hyla prasina* was not a widely used name. For this reason, they concluded that *H. prasina* cannot be considered a *nomen protectum*, and that the name *Hyla quoyi* should be used. In this work we provide arguments contrary to Ohler & Dubois (2018) and highlight how incomplete literature reviews that call for the Principle of Priority or its reversal can have negative impacts on nomenclatural stability.

MATERIAL AND METHODS

We made a search in online databases on 6 April 2018 for references between 1968 and 2018 (the last 50 years) with the terms “*Hyla prasina*” OR “*Hypsiboas prasinus*” OR “*Boana prasina*”, and a search for references after 1899 with the terms “*Hyla quoyi*” OR “*Hypsiboas quoyi*” OR “*Boana quoyi*”. Searches were made in two steps: one with the selected terms restricted to the title of the work; another with the terms in any part of the text. Databases used were Google Scholar (<https://scholar.google.com.br>), BioOne (<http://www.bioone.org/>), JSTOR (<http://www.jstor.org>), Science Direct (<https://www.sciencedirect.com>), Scopus (<https://www.scopus.com>), Web of Science (<http://webofknowledge.com>), and Wiley Online Library (<https://onlinelibrary.wiley.com>). Additionally, we searched on all issues of the traditional journal *Herpetological Review* which is not completely indexed by those databases but is available online (<https://ssarherps.org/herpetological-review-pdfs/>). We considered as valid references only those that constitute a published work under Article 8 of the *Code*.

RESULTS

For terms related to the name *Hyla quoyi*, the only published work found that considers it a valid name is Ohler & Dubois (2018). Search in Google Scholar for the terms “*Hyla*

prasina”, “*Hypsiboas prasinus*” or “*Boana prasina*” in the title of the article resulted in seven references, of which five can be considered a published work by the *Code* (Kwet & Miranda 2001; Kiss *et al.* 2009; Madelaire *et al.* 2012, 2013; Delgado & Haddad 2015). Nevertheless, 244 references were recovered when the terms were searched in any part of the text. Some results were duplicates; many are unpublished works (dissertations and theses); a few present the selected term only in the title of a cited reference; but not less than 70 in fact are published works that considered *Hyla prasina*/*Hypsiboas prasinus*/*Boana prasina* as a valid name (see Discussion).

At JSTOR, there are 15 published works that cite one of the names as valid (Heyer *et al.* 1988; Bertoluci 1998; Eterovick *et al.* 2002, 2005; Garcia *et al.* 2003, 2007; Jim 2004; Gomes *et al.* 2004; Haddad & Prado 2005; Wiens *et al.* 2005; D’Heursel & Haddad 2007; Antunes *et al.* 2008; Lehr *et al.* 2010; Madelaire *et al.* 2012, 2013) – the last two cite *Hypsiboas prasinus* in the title. Another record cites *H. prasinus* only in the title of a cited reference; and three do not constitute published works.

Searching in BioOne recovered three articles with the selected terms in the title (Madelaire *et al.* 2012, 2013; Delgado & Haddad 2015) and 13 with the terms in the text: 11 that cite *Hyla prasina*/*Hypsiboas prasinus* as valid (Eterovick *et al.* 2002; Garcia *et al.* 2003, 2007; Haddad & Prado 2005; Faivovich *et al.* 2005; D’Heursel & Haddad 2007; Antunes *et al.* 2008; Madelaire *et al.* 2012, 2013; McAllister *et al.* 2013; Delgado & Haddad 2015), one journal table of contents (not a published work), and Ohler & Dubois (2018).

In Science Direct the search recovered four references with the terms in the text: one table of contents (not a published work), and three articles (Faivovich *et al.* 2004; Kiss *et al.* 2009; Moretti *et al.* 2017) – the second one with *H. prasinus* in the title. In Scopus and the Web of Science we found four published works (Kiss *et al.* 2009; Madelaire *et al.* 2012, 2013; Delgado & Haddad 2015) and one meeting abstract citing *H. prasinus* in the title. If selected terms can be in any part of the text, the search at Scopus recovered 26 published works: 14 citing one of the species names as valid (Kiss *et al.* 2009; Caramaschi & Niemeyer 2010; Madelaire *et al.* 2012, 2013; McAllister *et al.* 2013; Toledo *et al.* 2013; Campião *et al.* 2014; Delgado & Haddad 2015; An & Waldman 2016; Greenspan *et al.* 2016; Pinheiro *et al.* 2016; Kindermann *et al.* 2017; Köhler *et al.* 2017; Moretti *et al.* 2017) and 12 citing *H. prasinus* only in the title of a cited reference. The Web of Science recovered 13 references: 11 articles (Bertoluci 1998; Giarretta *et al.* 1999; Faivovich *et al.* 2005; Zina *et al.* 2007; Kiss *et al.* 2009; Caramaschi & Niemeyer 2010; Madelaire *et al.* 2012, 2013; Delgado & Haddad 2015; Batista *et al.* 2015; Moretti *et al.* 2017), one meeting abstract, and an article (Valente *et al.* 1993), we were unable to access; if restricted to the Core Collection, the search recovered six articles and one meeting abstract.

Search in Wiley Online Library recovered no articles with the selected terms in the title, and only two with the terms in the text (Eterovick *et al.* 2005; Greenspan *et al.* 2016). The search in all issues of *Herpetological Review* recovered

only one reference (Kwet & Miranda 2001). Finally, eight references we have in our archives but are not included in databases but cite one of the names as valid (Beçak 1968; Lutz 1973; Lynch 1979; Reynolds & Foster 1992; Duellman *et al.* 1997; Stuart *et al.* 2008; Pyron & Wiens 2011; Haddad *et al.* 2013).

Based on the results from our search, the longest period without published works citing *Hyla prasina*, *Hypsiboas prasinus*, or *Boana prasina* as valid names was between 1979 and 1987. After 1997 at least one work per year considers those names as valid.

DISCUSSION

Our search for works published between 1968 and April 2018 considering *Hyla prasina*, *Hypsiboas prasinus*, or *Boana prasina* as a valid name recovered 93 references that met the criteria of Article 23.9.1.2 of the *Code* (Beçak 1968; Lutz 1973; Lynch 1979; Haddad & Pombal 1987; Heyer *et al.* 1988, 1990; Martins & Haddad 1988; Reynolds & Foster 1992; Baldissera *et al.* 1993; Duellman *et al.* 1997; Pombal 1997, 2010; Bertoluci 1998; Giaretta *et al.* 1999; Machado *et al.* 1999; Amaral *et al.* 2000; Bernarde & Machado 2001; Kwet & Miranda 2001; Bertoluci & Rodrigues 2002; Eterovick *et al.* 2002, 2005; Machado & Bernarde 2002; Garcia *et al.* 2003, 2007, 2008; Faivovich *et al.* 2004, 2005; Gomes *et al.* 2004; Jim 2004; Rocha *et al.* 2004; Haddad & Prado 2005; Pombal & Haddad 2005; Ribeiro *et al.* 2005; Wiens *et al.* 2005; Conte & Rossa-Feres 2006, 2007; d’Heursel & Haddad 2007; Machado & Maltchik 2007; Melo *et al.* 2007; Moraes *et al.* 2007; Zina *et al.* 2007; Antunes *et al.* 2008; Kolenc *et al.* 2008; Kwet 2008; Miranda *et al.* 2008; Stuart *et al.* 2008; Araújo *et al.* 2009; Condez *et al.* 2009; Kiss *et al.* 2009; Santos *et al.* 2009; Shibatta *et al.* 2009; Toledo & Haddad 2009a, b; Araújo *et al.* 2010, 2013; Caramaschi & Niemeyer 2010; Forlani *et al.* 2010; Lehr *et al.* 2010; Iop *et al.* 2011; Pyron & Wiens 2011; Rossa-Feres *et al.* 2011; Gründler *et al.* 2012; Toledo & Batista 2012; Madelaire *et al.* 2012, 2013; Valdujo *et al.* 2012; Araújo & Almeida-Santos 2013; Haddad *et al.* 2013; McAllister *et al.* 2013; Toledo *et al.* 2013; Batista & Bastos 2014; Maffei & Ubaid 2014; Campião *et al.* 2014; Mattos *et al.* 2014; Silva *et al.* 2014; Zina *et al.* 2014; Delgado & Haddad 2015; Nazaretti & Conte 2015; Batista *et al.* 2015; Gonçalves *et al.* 2015; Nascimento *et al.* 2015; An & Waldman 2016; Garey & Provete 2016; Santos & Conte 2016; Greenspan *et al.* 2016; Pinheiro *et al.* 2016; Guerra-Fuentes *et al.* 2017; Kindermann *et al.* 2017; Köhler *et al.* 2017; Moretti *et al.* 2017; Silva *et al.* 2017; Ta-boada *et al.* 2017; Dorigo *et al.* 2018). This long list clearly shows that *Hyla prasina* Burmeister, 1856 is a widely used name (mostly under the combination *Hypsiboas prasinus*, now *Boana prasina*), contrary to the statement by Ohler & Dubois (2018).

Despite the amount of evidence of the wide use of *Hyla prasina* in the literature, for the reversal of precedence to apply, conditions of both Articles 23.9.1.1 and 23.9.1.2 need

to be met. But since Ohler & Dubois (2018) used *Hyla quoyi* as a valid name, the condition of Article 23.9.1.1 no longer applies (“the senior synonym or homonym has not been used as a valid name after 1899”). However, the use of the obscure name *H. quoyi* instead of the widely recognized *H. prasina* will cause confusion and threatens stability. To solve this, Article 23.9.3 is to be followed, i.e., the case needs to be referred to the International Commission of Zoological Nomenclature (hereafter “the *Commission*”) to be ruled using their plenary power. The use of the younger name (*H. prasina*) is to be kept until a decision is made.

While our manuscript was under review, Kolenc & Baldo (2018) also published a note showing the wide usage of *Hyla prasina* in literature. Furthermore, they argue that assumptions by Ohler & Dubois (2018) were based on a false premise with wrong conclusions and should be invalidated. According to Kolenc & Baldo (2018), the invalidation of the proposals of Ohler & Dubois (2018) finds support in Article 23.2 of the Principle of Priority, where it reads “the Principle of Priority is to be used to promote stability and it is not intended to be used to upset a long-accepted name in its accustomed meaning by the introduction of a name that is its senior synonym or homonym”. Although we agree with Kolenc & Baldo (2018) regarding the mistakes committed by Ohler & Dubois (2018), we refrain to affirm that Article 23.2 can be called to invalidate the proposals of these latter authors without referring the issue to the *Commission*.

Electronic bibliographic databases are a very useful tool, making the search for references much faster and maybe more complete than ever before. Many different databases are available, and, as our work shows, each brings its particular results for a same search. Google Scholar by far recovers more results, although with some duplicates and many unpublished works – mainly dissertations and theses, which can be useful depending on the needs of the research. Despite the variety of bibliographical databases available, Ohler & Dubois (2018) restricted their search to the core collection of the Web of Science and the Web of Science Zoological Record. They did not indicate which terms they used for their search but said that it recovered only 11 references. Such very restricted bibliographic search led Ohler & Dubois (2018) to incorrectly suggest that the old and forgotten name *Hyla quoyi* should be used instead of its junior widely used synonym *Hyla prasina*. We strongly recommend authors aiming to propose reversal of precedence for names based on Article 23.9 of the *Code* to expand searches to a wide range of electronic databases, especially Google Scholar. But we call attention that some traditional journals containing important taxonomic publications may not be completely available online (like *Boletim do Museu Nacional, Papéis Avulsos de Zoologia*, and *Revista Brasileira de Biologia*, in Brazil). Thus, this fact can hinder or bias proper bibliographic searches if a library is not visited. Also, we suggest that searches at electronic bibliographical databases should be replicable, and when their use is cited in the study, the selected terms and other search criteria should be informed.

Acknowledgements

We are grateful to Maria Clara N. Costa for a review of the first version of this manuscript; to Neal Evenhuis and an anonymous reviewer who provided important considerations that improved the text. This study was financed in part by CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior), Brazil, through a DSc scholarship to HC (Finance Code 001). DJS thanks CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) for his research fellowship (311492/2017-7).

REFERENCES

- AMARAL M. J. L. V., CARDOSO A. J. & RECCO-PIMENTEL S. M. 2000. — Cytogenetic analysis of three *Physalaemus* species (Amphibia, Anura). *Caryologia* 53: 283-288. <https://doi.org/10.1080/00087114.2000.10589207>
- AN D. & WALDMAN B. 2016. — Enhanced call effort in Japanese tree frogs infected by amphibian chytrid fungus. *Biology Letters* 12: 1-4. <https://doi.org/10.1098/rsbl.2016.0018>
- ANTUNES A. P., FAIVOVICH J. & HADDAD C. F. B. 2008. — A new species of *Hypsiboas* from The Atlantic Forest of Southeastern Brazil (Amphibia: Anura: Hylidae). *Copeia* 2008: 179-190. <https://doi.org/10.1643/CH-06-163>
- ARAUJO C. O. & ALMEIDA-SANTOS S. M. 2013. — Composição, riqueza e abundância de anuros em um remanescente de Cerrado e Mata Atlântica no estado de São Paulo. *Biota Neotropica* 13: 265-275. <https://doi.org/10.1590/S1676-06032013000100026>
- ARAUJO O. G. S., TOLEDO L. F., GARCIA P. C. A. & HADDAD C. F. B. 2009. — The amphibians of São Paulo State, Brazil amphibians of São Paulo. *Biota Neotropica* 9: 197-209. <https://doi.org/10.1590/S1676-06032009000400020>
- ARAUJO C. O., CONDEZ T. H., BOVO R. P., CENTENO F. C. & LUIZ A. M. 2010. — Amphibians and reptiles of the Parque Estadual Turístico do Alto Ribeira (PETAR), SP: an Atlantic Forest remnant of Southeastern Brazil. *Biota Neotropica* 10: 257-274. <https://doi.org/10.1590/S1676-06032010000400031>
- ARAUJO C. O., MATSUKUMA C. K. & SANTOS S. M. A. 2013. — Composição taxonômica e distribuição de anuros no Alto e Médio Paranapanema, estado de São Paulo. *Biota Neotropica* 13: 241-258. <https://doi.org/10.1590/S1676-06032013000300027>
- BALDISSERA F. A., OLIVEIRA P. S. L. & KASAHARA S. 1993. — Cytogenetics of four Brazilian *Hyla* species (Amphibia - Anura) and description of a case with a supernumerary chromosome. *Revista Brasileira de Genética* 16: 335-345.
- BATISTA V. G. & BASTOS R. P. 2014. — Anurans from a Cerrado-Atlantic Forest ecotone in Campos Gerais region, southern Brazil. *Check List* 10: 574-582. <https://doi.org/10.15560/10.3.574>
- BATISTA V. G., GAMBALE P. G., LOURENÇO-DE-MORAES R., CAMPOS R. M. & BASTOS R. P. 2015. — Vocalizations of two species of the *Hypsiboas pulchellus* group (Anura: Hylidae) with comments on this species group. *North-Western Journal of Zoology* 11: 253-261.
- BEČAK M. L. 1968. — Chromosomal analysis of eighteen species of Anura. *Caryologia* 21: 191-208. <https://doi.org/10.1080/00087114.1968.10796299>
- BERNARDE P. S. & MACHADO R. A. 2001. — Riqueza de espécies, ambientes de reprodução e temporada da vocalização da anurofauna em Três Barras do Paraná, Brasil (Amphibia: Anura). *Cuadernos de Herpetologia* 14: 93-104.
- BERTOLUCI J. 1998. — Annual patterns of breeding activity in Atlantic Rainforest anurans. *Journal of Herpetology* 32: 607-611. <https://doi.org/10.2307/1565223>
- BERTOLUCI J. & RODRIGUES M. T. 2002. — Seasonal patterns of breeding activity of Atlantic Rainforest anurans at Boracéia, Southeastern Brazil. *Amphibia-Reptilia* 23: 161-167. <https://doi.org/10.1163/156853802760061804>
- BORY DE SAINT-VINCENT [J. B. G. M.] 1828. — Rainette de Gaimard, *Hyla Gaimardi*, Rainette de Quoy, *Hyla Quoyi*, in BORY DE SAINT-VINCENT (ed), *Dictionnaire Classique d'histoire naturelle*. Planches, treizième livraison. Rey & Gravier, Baudouin Frères, Paris: [i-ii], 10 pls.
- BURMEISTER H. 1856. — Erläuterungen zur Fauna Brasiliens, enthaltend Abbildungen und ausführliche Beschreibungen neuer oder ungenügend bekannter Thier-Arten. Georg Reimer, Berlin: i-x + 1-115 + 32 pls.
- CAMPIÃO K. M., MORAIS D. H., DIAS O. T., AGUIAR A., TOLEDO G. M., TAVARES L. E. R. & SILVA R. J. 2014. — Checklist of helminth parasites of amphibians from South America. *Zootaxa* 3843: 001-093. <https://doi.org/10.11646/zootaxa.3843.1.1>
- CARAMASCHI U. & NIEMEYER H. 2010. — The nomenclatural status of *Rana gaimardii* Bory de Saint-Vincent, 1828, and *Hyla quoyi* Bory de Saint-Vincent, 1828 (Anura, Hylidae). *Zootaxa* 2655: 63-68.
- CONDEZ T. H., SAWAYA R. J. & DIXO M. 2009. — Herpetofauna dos remanescentes de Mata Atlântica da região de Tapiraí e Piedade, SP, sudeste do Brasil. *Biota Neotropica* 9: 157-185. <https://doi.org/10.1590/S1676-06032009000100018>
- CONTE C. E. & ROSSA-FERES D. C. 2006. — Diversidade e ocorrência temporal da anurofauna (Amphibia, Anura) em São José dos Pinhais, Paraná, Brasil. *Revista Brasileira de Zoologia* 23: 162-175. <https://doi.org/10.1590/S0101-81752006000100008>
- CONTE C. E. & ROSSA-FERES D. C. 2007. — Riqueza e distribuição espaço-temporal de anuros em um remanescente de Floresta de Araucária no sudeste do Paraná. *Revista Brasileira de Zoologia* 24: 1025-1037. <https://doi.org/10.1590/S0101-81752007000400020>
- DELGADO D. B. & HADDAD C. F. B. 2015. — Calling activity and vocal repertoire of *Hypsiboas prasinus* (Anura, Hylidae), a Treefrog from the Atlantic Forest of Brazil. *Herpetologica* 71: 88-95. <https://doi.org/10.1655/HERPETOLOGICA-D-13-00071>
- D'HEURSEL A. & HADDAD C. F. B. 2007. — Anatomy of the oral cavity of hylid larvae from the genera *Aplastodiscus*, *Bokermannohyla*, and *Hypsiboas* (Amphibia, Anura): description and systematic implications. *Journal of Herpetology* 41: 458-468. [https://doi.org/10.1670/0022-1511\(2007\)41\[458:AOTOCO\]2.0.CO;2](https://doi.org/10.1670/0022-1511(2007)41[458:AOTOCO]2.0.CO;2)
- DORIGO T. A., VRCIBRADIC D. & ROCHA C. F. D. 2018. — The amphibians of the state of Rio de Janeiro, Brazil: an updated and commented list. *Papéis Avulsos de Zoologia* 58: 1-11. <https://doi.org/10.11606/1807-0205/2018.58.05>
- DUELLMAN W. E., DE LA RIVA I. & WILD E. R. 1997. — Frogs of the *Hyla armata* and *Hyla pulchella* group in the Andes of South America, with definitions and analyses of phylogenetic relationships of Andean group of *Hyla*. *Scientific Papers, Natural History Museum, University of Kansas* 3: 1-41.
- ETEROVICK P. C., BARROS I. S. & SAZIMA I. 2002. — Tadpoles of two species in the *Hyla polytaenia* species group and comparison with other tadpoles of *Hyla polytaenia* and *Hyla pulchella* groups (Anura, Hylidae). *Journal of Herpetology* 36: 512-515. <https://doi.org/10.2307/1566201>
- ETEROVICK P. C., CARNAVAL A. C. O., BORGES-NOJOSA D. M., SILVANO D. L., SEGALLA M. V. & SAZIMA I. 2005. — Amphibian declines in Brazil: an overview. *Biotropica* 37: 166-179. <https://doi.org/10.1111/j.1744-7429.2005.00024.x>
- FAIVOVICH J., GARCIA P. C., ANANIAS F., LANARI L., BASSO N. G. & WHEELER W. C. 2004. — A molecular perspective on the phylogeny of the *Hyla pulchella* species group (Anura, Hylidae). *Molecular Phylogenetics and Evolution* 32: 938-950. <https://doi.org/10.1016/j.ympev.2004.03.008>
- FAIVOVICH J., HADDAD C. F. B., GARCIA P. C. A., FROST D. R., CAMPBELL J. A. & WHEELER W. C. 2005. — Systematic review of the frog family Hylidae, with special reference to Hylineae: phylogenetic analysis and taxonomic revision. *Bulletin of the American Museum of Natural History* 294: 1-240. [https://doi.org/10.1206/0003-0090\(2005\)294\[0001:SRO TFF\]2.0.CO;2](https://doi.org/10.1206/0003-0090(2005)294[0001:SRO TFF]2.0.CO;2)

- FORLANI M. C., BERNARDO P. H., HADDAD C. F. B. & ZAHER H. 2010. — Herpetofauna do Parque Estadual Carlos Botelho, São Paulo, Brasil. *Biotropica* 10: 265-308. <https://doi.org/10.1590/S1676-06032010000300028>
- GARCIA P. C. A., VINCIPROVA G. & HADDAD C. F. B. 2003. — The taxonomic status of *Hyla pulchella joaquini* (Anura: Hylidae) with description of its tadpole and vocalization. *Herpetologica* 59: 350-363. <https://doi.org/10.1655/01-54>
- GARCIA P. C. A., FAIVOVICH J. & HADDAD C. F. B. 2007. — Redescription of *Hypsiboas semiguttatus*, with the Description of a New Species of the *Hypsiboas pulchellus* Group. *Copeia* 2007: 933-949. [https://doi.org/10.1643/0045-8511\(2007\)7\[933:ROH SWT\]2.0.CO;2](https://doi.org/10.1643/0045-8511(2007)7[933:ROH SWT]2.0.CO;2)
- GARCIA P. C. A., PEIXOTO O. L. & HADDAD C. F. B. 2008. — A new species of *Hypsiboas* (Anura: Hylidae) from the atlantic forest of Santa Catarina, southern Brazil, with comments on its conservation status. *South American Journal of Herpetology* 3: 27-35. [https://doi.org/10.2994/1808-9798\(2008\)3\[27:ANSOHA\]2.0.CO;2](https://doi.org/10.2994/1808-9798(2008)3[27:ANSOHA]2.0.CO;2)
- GAREY M. V. & PROVETE D. B. 2016. — Species composition, conservation status, and sources of threat of anurans in mosaics of highland and grasslands of southern and southeastern Brazil. *Oecologia Australis* 20: 232-246. <https://doi.org/10.4257/oeco.2016.2002.07>
- GIARETTA A., FACURE K. G., SAWAYA R. J., MEYER J. H. D. & CHEMIN N. 1999. — Diversity and abundance of titter frogs in a montane forest of southeastern Brazil: Seasonal and altitudinal changes. *Biotropica* 31: 669-674. <https://doi.org/10.1111/j.1744-7429.1999.tb00416.x>
- GOMES F. R., CHAUÍ-BERLINCK J. G., BICUDO J. E. P. W. & NAVAS C. A. 2004. — Intraspecific Relationships between Resting and Activity Metabolism in Anuran Amphibians: Influence of Ecology and Behavior. *Physiological and Biochemical Zoology* 77: 197-208. <https://doi.org/10.1086/381471>
- GONÇALVES D. S., CRIVELLARI L. B. & CONTE C. E. 2015. — Linking environmental drivers with amphibian species diversity in ponds from subtropical grasslands. *Anais da Academia Brasileira de Ciências* 87: 1751-1762. <https://doi.org/10.1590/0001-3765201520140471>
- GREENSPAN S. E., ROZNIK E. A., SCHWARZKOPF L., ALFORD R. A. & PIKE D. A. 2016. — Robust calling performance in frogs infected by a deadly fungal pathogen. *Ecology and Evolution* 6: 5964-5972. <https://doi.org/10.1002/ece3.2256>
- GRÜNDLER M., TOLEDO L., PARRA-OLEA G., HADDAD C. F. B., GIASSON L., SAWAYA R., PRADO C., ARAUJO O., ZARA F., CENTENO F. & ZAMUDIO K. 2012. — Interaction between breeding habitat and elevation affects prevalence but not infection intensity of *Batrachochytrium dendrobatidis* in Brazilian anuran assemblages. *Diseases of Aquatic Organisms* 97: 173-184. <https://doi.org/10.3354/dao02413>
- GUERRA-FUENTES R. A., KATO K., GHELLERE J. M. B. & DIXO M. 2017. — Numa selva de pedra uma ilha de Mata Atlântica: A herpetofauna da Reserva Biológica Tamboré, Santana de Parnaíba, SP. *Oecologia Australis* 21: 292-301. <https://doi.org/10.4257/oeco.2017.2103.06>
- HADDAD C. F. B. & POMBAL J. P. 1987. — *Hyla hiemalis*, nova espécie do grupo *rizibilis* do estado de São Paulo (Amphibia, Anura, Hylidae). *Revista Brasileira de Biologia* 47: 127-132.
- HADDAD C. F. B. & PRADO C. P. A. 2005. — Reproductive modes in frogs and their unexpected diversity in the Atlantic Forest of Brazil. *BioScience* 55: 207-217. [https://doi.org/10.1641/0006-3568\(2005\)055\[0207:RMIFAT\]2.0.CO;2](https://doi.org/10.1641/0006-3568(2005)055[0207:RMIFAT]2.0.CO;2)
- HADDAD C. F. B., TOLEDO L. F., PRADO C. P. A., LOEBMANN D., GASPARINI J. L. & SAZIMA I. 2013. — *Guia dos anfíbios da Mata Atlântica: diversidade e biologia / Guide to the amphibians of the Atlantic Forest: diversity and biology*. Anolis Books, São Paulo, 1-544.
- HEYER W. R., RAND A. S., CRUZ C. A. G. & PEIXOTO O. L. 1988. — Decimations, extinctions, and colonizations of frog populations in Southeast Brazil and their evolutionary implications. *Biotropica* 20: 230-235. <https://doi.org/10.2307/2388238>
- HEYER W. R., RAND A. S., CRUZ C. A. G., PEIXOTO O. L. & NELSON C. E. 1990. — Frogs of Boracéia. *Arquivos de Zoologia* 31: 231-410. <https://doi.org/10.11606/issn.2176-7793.v31i4p231-410>
- INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE 1999. — *International Code of Zoological Nomenclature*. Fourth edition. International Trust for Zoological Nomenclature, London, i-xxix + 1-306.
- IOP S., CALDART V. M., SANTOS T. G. & CECHEIN S. Z. 2011. — Anurans of Turvo State Park: testing the validity of Seasonal Forest as a new biome in Brazil. *Journal of Natural History* 45: 2443-2461. <https://doi.org/10.1080/00222933.2011.596951>
- JIM J. 2004. — Aspectos gerais da anurofauna da região de Botucatu, in UIEDA W. & PALEARI L. M. (org). *Flora e Fauna. Um dossiê ambiental*. Editora UNESP, São Paulo, 75-90.
- KINDERMANN C., NARAYAN E. J. & HERO J.-M. 2017. — Does physiological response to disease incur cost to reproductive ecology in a sexually dichromatic amphibian species? *Comparative Biochemistry and Physiology, Part A* 203: 220-226. <https://doi.org/10.1016/j.cbpa.2016.09.019>
- KISS A. C. I., CARVALHO J. E., NAVAS C. A. & GOMES F. R. 2009. — Seasonal metabolic changes in a year-round reproductively active subtropical tree-frog (*Hypsiboas prasinus*). *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 152: 182-188. <https://doi.org/10.1016/j.cbpa.2008.09.011>
- KÖHLER J., JANSEN M., RODRÍGUEZ A., KOK P. J. R., TOLEDO L. F., EMMRICH M., GLAW F., HADDAD C. F. B., RÖDEL M. O. & VENCES M. 2017. — The use of bioacoustics in anuran taxonomy: theory, terminology, methods and recommendations for best practice. *Zootaxa*. 4251: 1-124. <https://doi.org/10.11646/zootaxa.4251.1.1>
- KOLENC F. & BALDO D. 2018. — *Hyla prasina* Burmeister, 1856 meets the requirements of Article 23.9.1 of the Code for a reversal of precedence over *Hyla quoyi* Bory de Saint-Vincent, 1828 (Anura, Hylidae). *Zootaxa* 4442: 589-594. <https://doi.org/10.11646/zootaxa.4442.4.8>
- KOLENC F., BORTEIRO C., ALCALDE L., BALDO D., CARDOZO D. & FAIVOVICH J. 2008. — Comparative larval morphology of eight species of *Hypsiboas* Wagler (Amphibia, Anura, Hylidae) from Argentina and Uruguay, with a review of the larvae of this genus. *Zootaxa* 1927: 1-66.
- KWET A. 2008. — New species of *Hypsiboas* (Anura: Hylidae) in the *pulchellus* group from southern Brazil. *Salamandra* 44: 1-14.
- KWET A. & MIRANDA T. 2001. — Geographic distribution of *Hyla prasina* (Burmeister's Treefrog). *Herpetological Review* 32: 271.
- LEHR E., FAIVOVICH J. & JUNGFER K.-H. 2010. — A new andean species of the *Hypsiboas pulchellus* group: adults, calls, and phylogenetic relationships. *Herpetologica* 66: 296-307. <https://doi.org/10.1655/09-026.1>
- LUTZ B. 1973. — *Brazilian species of Hyla*. University of Texas Press, Austin & London, 1-260.
- LYNCH J. D. 1979. — The amphibians of the lowland tropical forests, in DUELLMAN W. E. (ed), *The South American herpetofauna: its origin, evolution, and dispersal*. *Museum Natural History, University of Kansas, Monography* 7: 189-215.
- MACHADO I. F. & MALTCHIK L. 2007. — Check-list da diversidade de anuros no Rio Grande do Sul (Brasil) e proposta de classificação para as formas larvais. *Neotropical Biology and Conservation* 2: 101-116.
- MACHADO R. A. & BERNARDE P. S. 2002. — Anurofauna da bacia do rio Tibagi, in MEDRI M. E., BIANCHINI E., SHIBATTA O. A., PIMENTA J. A. (ed), *A Bacia do Rio Tibagi*. M. E. Medri, Londrina, 297-306.
- MACHADO R. A., BERNARDE P. S., MORATO S. A. A. & ANJOS L. 1999. — Análise comparada da riqueza de anuros entre duas áreas com diferentes estados de conservação no município de Londrina, Paraná, Brasil (Amphibia, Anura). *Revista Brasileira de Zoologia* 16: 997-1004. <https://doi.org/10.1590/S0101-81751999000400009>

- MADELAIRE C. B., GOMES F. R. & SILVA R. J. 2012. — Helminth parasites of *Hypsiboas prasinus* (Anura: Hylidae) from two atlantic forest fragments, São Paulo State, Brazil. *Journal of Parasitology* 98: 560-564. <https://doi.org/10.1645/JIP-GE-2665.1>
- MADELAIRE C. B., SILVA R. J. & GOMES F. R. 2013. — Calling behavior and parasite intensity in treefrogs, *Hypsiboas prasinus*. *Journal of Herpetology* 47: 450-455. <https://doi.org/10.1670/11-315>
- MAFFEI F. & UBAID F. K. 2014. — *Amphibians of Rio Claro Farm, Lençóis Paulista, São Paulo, Brazil*. Bauru: Canal 6 Editora, 1-146.
- MARTINS M. & HADDAD C. F. B. 1988. — Vocalizations and reproductive behaviour in the smith frog, *Hyla faber* Wied (Amphibia: Hylidae). *Amphibia-Reptilia* 9: 49-60. <https://doi.org/10.1163/156853888X00206>
- MATTOS T. L., COELHO A., SCHNEIDER C., TELLES D. O., MENIN M. & GROSS M. 2014. — Karyotypic diversity in seven Amazonian anurans in the genus *Hypsiboas* (family Hylidae). *BMC Genetics* 15: 43. <https://doi.org/10.1186/1471-2156-15-43>
- MCALLISTER C. T., BURSEY C. R., ROBISON H. W. & CONNIOR M. B. 2013. — Parasites of the Ozark Zig-Zag Salamander, *Plethodon angusticlavius* (Caudata: Plethodontidae), from Northern Arkansas. *Comparative Parasitology* 80: 69-79. <https://doi.org/10.1654/4600.1>
- MELO G. V., ROSSA-FERES D. C. & JIM J. 2007. — Variação temporal no sítio de vocalização em uma comunidade de anuros de Botucatu, Estado de São Paulo, Brasil. *Biota Neotropica* 7: 93-102. <https://doi.org/10.1590/S1676-06032007000200011>
- MIRANDA D. B., GAREY M. V., MONTEIRO-FILHO E. L. A. & HARTMANN M. T. 2008. — Sinalização visual e biologia reprodutiva de *Dendropsophus wuernei* (Anura: Hylidae) em área de Mata Atlântica no estado do Paraná, Brasil. *Papéis Avulsos de Zoologia* 48: 335-343. <https://doi.org/10.1590/S0031-10492008002900001>
- MORAES R. A., SAWAYA R. J. & BARRELLA W. 2007. — Composição e diversidade de anfíbios anuros em dois ambientes de Mata Atlântica no Parque Estadual Carlos Botelho, São Paulo, sudeste do Brasil. *Biota Neotropica* 7: 27-36. <https://doi.org/10.1590/S1676-06032007000200003>
- MORETTI E. H., TITON B., MADELAIRE C. B., ARRUDA R., ALVAREZ T. & GOMES F. R. 2017. — Behavioral, physiological and morphological correlates of parasite intensity in the wild Cururu toad (*Rhinella icterica*). *International Journal for Parasitology: Parasites and Wildlife* 6: 146-154. <https://doi.org/10.1016/j.ijppaw.2017.06.003>
- NASCIMENTO A. P. B., ALMEIDA A., LANTYER-SILVA A. S. F. & ZINA J. 2015. — Biologia reprodutiva de *Hypsiboas crepitans* (Amphibia, Anura, Hylidae). *Boletim do Museu de Biologia Mello Leitão (Nova Série)* 37: 271-291.
- NAZARETTI E. M. & CONTE C. E. 2015. — Anurofauna de um remanescente alterado de floresta estacional semidecidual as margens do Rio Paranapanema. *Iheringia. Série Zoologia* 105: 420-429. <https://doi.org/10.1590/1678-476620151054420429>
- OHLE A. & DUBOIS A. 2018. — Article 23.9 of the Code cannot be used to reject the nomen *Hyla quoyi* Bory de Saint-Vincent, 1828 as a nomen oblitum. *Zoosystema* 40 (6): 109-121. <https://doi.org/10.5252/zoosystema2018v40a6>. <http://zoosystema.com/40/6>
- PINHEIRO P. D. P., PEZZUTI T. L., LEITE F. S. F., GARCIA P. C. A., HADDAD C. F. B. & FAIVOVICH J. 2016. — A new species of the *Hypsiboas pulchellus* group from the Serra da Mantiqueira, Southeastern Brazil (Amphibia: Anura: Hylidae). *Herpetologica* 72: 256-270. <https://doi.org/10.1655/Herpetologica-D-15-00062.1>
- POMBAL J. P. 1997. — Distribuição espacial e temporal de anuros (Amphibia) em uma poça permanente na Serra de Paranapiacaba, sudeste do Brasil. *Revista Brasileira de Biologia* 57: 583-594.
- POMBAL J. P. 2010. — O espaço acústico em uma taxocenose de anuros (Amphibia) do sudeste do Brasil. *Arquivos do Museu Nacional, Rio de Janeiro* 68: 135-144.
- POMBAL J. P. & HADDAD C. F. B. 2005. — Strategies and reproductive modes of anurans (Amphibia) in a permanent pond in Serra de Paranapiacaba, southeastern Brazil. *Papéis Avulsos de Zoologia* 45: 201-213. <https://doi.org/10.1590/S0031-10492005001500001>
- PYRON R. A. & WIENS J. J. 2011. — A large-scale phylogeny of Amphibia including over 2800 species, and a revised classification of extant frogs, salamanders, and caecilians. *Molecular Phylogenetics and Evolution* 61: 543-583. <https://doi.org/10.1016/j.ympev.2011.06.012>
- REYNOLDS R. P. & FOSTER M. S. 1992. — Four new species of frogs and one new species of snake from the Chapare Region of Bolivia, with notes on other species. *Herpetological Monographs* 6: 83-104. <https://doi.org/10.2307/1466963>
- RIBEIRO R. S., EGITO G. T. B. T. & HADDAD C. F. B. 2005. — Chave de identificação: anfíbios anuros da vertente de Jundiá da Serra do Japi, Estado de São Paulo. *Biota Neotropica* 5: 235-247. <https://doi.org/10.1590/S1676-06032005000300017>
- ROCHA C. F. D., BERGALLO H. G., POMBAL J. P., GEISE L., VAN SLUYS M., FERNANDES R. & CARAMASCHI U. 2004. — Fauna de anfíbios, répteis e mamíferos do estado do Rio de Janeiro, sudeste do Brasil. *Publicações Avulsas do Museu Nacional, Rio de Janeiro* 104: 3-23.
- ROSSA-FERES D. C., SAWAYA R. J., FAIVOVICH J., GIOVANELLI J. G. R., BRASILEIRO C. A., SCHIESARI L., ALEXANDRINO J. & HADDAD C. F. B. 2011. — Anfíbios do estado de São Paulo, Brasil: conhecimento atual e perspectivas. *Biota Neotropica* 11: 47-66. <https://doi.org/10.1590/S1676-06032011000500004>
- SANTOS E. J. & CONTE C. E. 2016. — Diversity of anurans in dry forest fragments of a subtropical region in Brazil. *Anais da Academia Brasileira de Ciências* 88: 1923-1940. <https://doi.org/10.1590/0001-3765201620150698>
- SANTOS T. G., VASCONCELOS T. S., ROSSA-FERES D. & HADDAD C. F. B. 2009. — Anurans of a seasonally dry tropical forest: Morro do Diabo State Park, São Paulo state, Brazil. *Journal of Natural History* 43: 973-993. <https://doi.org/10.1080/00222930802702498>
- SHIBATTA O. A., GALVES W., CARMO W. P. D., LIMA I. P., LOPES E. V. & MACHADO R. A. 2009. — A fauna de vertebrados do campus da Universidade Estadual de Londrina, região norte do estado do Paraná, Brasil. *Semina: Ciências Biológicas e da Saúde* 30: 3-26.
- SILVA F. R., ALMEIDA-NETO M. & ARENA M. V. N. 2014. — Amphibian beta diversity in the Brazilian Atlantic Forest: contrasting the roles of historical events and contemporary conditions at different spatial scales. *PloS One* 9(10): e109642. <https://doi.org/10.1371/journal.pone.0109642>
- SILVA V. X., SACRAMENTO M., HASUI É., CUNHA R. G. T. & RAMOS F. N. 2017. — Taxonomic groups with lower movement capacity may present higher beta diversity. *Iheringia. Série Zoologia* 107: 1-20. <https://doi.org/10.1590/1678-4766e2017005>
- STUART S., HOFFMANN M., CHANSON J., COX N., BERRIDGE R., RAMANI P. & YOUNG B. 2008. — *Threatened Amphibians of the World*, Barcelona / Gland / Arlington: Lynx Edicions / IUCN/ Conservation International.
- TABOADA C., BRUNETTI A. E., PEDRON F. N., CARNEVALE NETO F., ESTRIN D. A., BARI S. E., CHEMEZ L. B., PEPORINE LOPES N., LAGORIO M. G. & FAIVOVICH J. 2017. — Naturally occurring fluorescence in frogs. *Proceedings of the National Academy of Sciences* 114: 3672-3677. <https://doi.org/10.1073/pnas.1701053114>
- TOLEDO L. F. & HADDAD C. F. B. 2009a. — Colors and some morphological traits as defensive mechanisms in anurans. *International Journal of Zoology* 2009: 1-12. <https://doi.org/10.1155/2009/910892>
- TOLEDO L. F. & HADDAD C. F. B. 2009b. — Defensive vocalizations of neotropical anurans. *South American Journal of Herpetology* 4: 25-42. <https://doi.org/10.2994/057.004.0104>
- TOLEDO G. M., FIORILLO B. F., SILVA R. J., ANJOS L. A. & PRADO C. P. A. 2013. — Occurrence of *Ochoterpenella digiticauda* (Nematoda: Onchocercidae) infecting the gladiator frog *Hypsiboas lundii* (Anura: Hylidae) in Brazil. *Herpetology Notes* 6: 47-50.
- VALDUJO P. H., SILVANO D. L., COLLI G. & MARTINS M. 2012. — Anuran species composition and distribution patterns in Brazilian Cerrado, a neotropical hotspot. *South American Journal of Herpetology* 7: 63-78. <https://doi.org/10.2994/057.007.0209>

- VALENTE V. L. S., RUSZCZYK A. & SANTOS R. A. 1993. — Chromosomal polymorphism in urban *Drosophila willistoni*. *Revista Brasileira de Genética* 16: 307-319.
- WIENS J. J., FETZNER J. W., PARKINSON C. L. & REEDER T. W. 2005. — Hylid frog phylogeny and sampling strategies for speciose clades. *Systematic Biology* 54: 778-807. <https://doi.org/10.1080/10635150500234625>
- ZINA J., ENNSER J., PINHEIRO S. C. P., HADDAD C. F. B. & TOLEDO L. F. 2007. — Taxocenose de anuros de uma mata semidecídua do interior do Estado de São Paulo e comparações com outras taxocenoses do estado, sudeste do Brasil. *Biota Neotropica* 7: 49-57. <https://doi.org/10.1590/S1676-06032007000200005>
- TOLEDO L. F. & BATISTA R. F. 2012. — Integrative study of Brazilian anurans: geographic distribution, size, environment, taxonomy, and conservation. *Biotropica* 44: 785-792. <https://doi.org/10.1111/j.1744-7429.2012.00866.x>
- ZINA J., SILVA G. R., LOEBMANN D. & ORRICO V. G. D. 2014. — The recognition of *Dendropsophus minusculus* (Rivero, 1971) (Hylidae, Dendropsophini) as a highly polymorphic, multi-domain distributed species. *Brazilian Journal of Biology* 74: 146-153. <https://doi.org/10.1590/1519-6984.22912>

*Submitted on 10 April 2018;
accepted on 20 July 2018;
published on 14 November 2018.*