Zootaxa 4979 (1): 006–016
https://www.mapress.com/j/zt/

Editorial

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

https://doi.org/10.11646/zootaxa.4979.1.3
http://zoobank.org/urn:lsid:zoobank.org:pub:BD67CC1C-4816-4EB2-AA22-0A5046132EE7

Contributions of *Zootaxa* to biodiversity discovery: an overview of the first twenty years

ZHI-QIANG ZHANG[1,2]
[1] *Manaaki Whenua—Landcare Research, 231 Morrin Road, Auckland 1072, New Zealand.*
zhangz@landcareresearch.co.nz; https://orcid.org/0000-0003-4172-0592
[2] *Centre for Biodiversity and Biosecurity, School of Biological Sciences, University of Auckland, Auckland, New Zealand.*

Abstract

On the 20th anniversary of *Zootaxa*, I herein provide an overview of its development and contributions over the last two decades (2001 to 2020) and an introduction to this special volume of 25 collected papers in celebration. *Zootaxa* published over 29,400 papers (including 1,499 monographs of 60 or more pages) by more than 28,000 authors in over 585,000 pages during these two decades. *Zootaxa* published 60,470 new species (subspecies), 272 new subgenera, 4,206 new genera, 26 new subtribes, 152 new tribes, 234 new subfamilies, 170 new families, nine new superfamilies, 41 new taxa (outside of the species, genus and family groups), and 996 new names in the past two decades. Since 2005, *Zootaxa* accounted for 26.6% of all new taxa/names indexed in *Zoological Record*. *Zootaxa* also published 12,684 new synonyms from 2001 to 2020. *Zootaxa* published papers for over 28,000 authors from 131 countries during the last two decades; about two-thirds of them published only one or two papers over the 20 years. The significant impacts of *Zootaxa* on advancing global taxonomy are discussed.

Key words: Biodiversity, trends, discovery, taxonomy, systematics, nomenclature, new species, new genera, new taxa, new synonyms, history

Introduction

Twenty years ago, there were significant impediments to taxonomic publishing. Many taxonomic journals had low visibility, a prolonged publication process, and minimal citations. It was difficult for taxonomists to find good journals to publish cost-efficiently, especially for the best of their works, the large monographs. *Zootaxa* was launched to help taxonomists overcome this impediment by accelerating the publication of taxonomic papers and monographs, especially those with descriptions and documentations of the world's unknown biodiversity. It was well received by the taxonomic community and rapidly became the largest and most important journal in the field within a few years (Zhang 2005, 2006a,b). Its early success was reviewed when it was five years old (Zhang 2006a) and when it became the first mega-journal in the field (Zhang 2006b). *Zootaxa*'s importance to the revival of taxonomy was discussed when taxonomy was 250 years old (Zhang 2010) and its contributions to biodiversity discovery was accessed when *Zootaxa* completed its first decade (Zhang 2006b). On the 20th anniversary of *Zootaxa*, I herein provide a historic overview of this journal, focusing on its development and contributions during the last ten years. I also take the opportunity to invite my co-editors of various taxon sections to present overviews of papers under their editorship. This special volume collects 25 contributions by over 130 editors (and a few of their collaborators). All papers of this volume are made open access for the benefit of the scientific community.

Phenomenal growth of the journal

Zootaxa publishes mainly articles with original research but also includes other types of contributions such as monographs (60 or more printed pages), short correspondence (often 1–4 pages), biographies, editorials, and errata

 Accepted by Q.-H. Fan: 27 May 2021; published: 28 May 2021

from time to time. In total, *Zootaxa* published 29,402 papers (or items, excluding book front matter for special volumes) from 2001 to 2020. Except for 2014, the number of papers increased rapidly, reaching a plateau in 2015 (Fig. 1): the first five years published only 1,370 papers; the second five years published 6,396 papers (367% increase over the first five years); the third five years published 9,893 papers (35.3% increase over the second five years); the fourth five years published 11,583 papers (17.1% increase over the third five years).

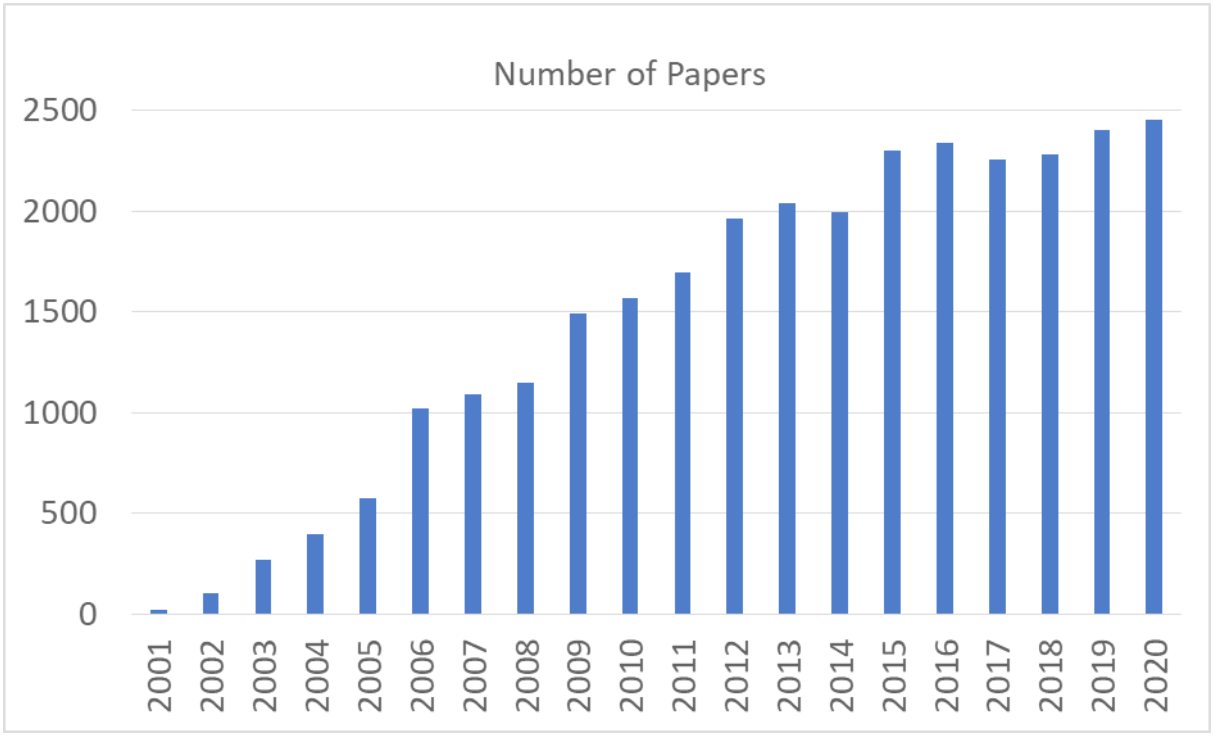

FIGURE 1. The number of papers published in *Zootaxa* from 2001 to 2020. Our data may slightly differ from those in *Zoological Record* because some papers/items such as editorials without taxonomic data are not indexed in *Zoological Record*.

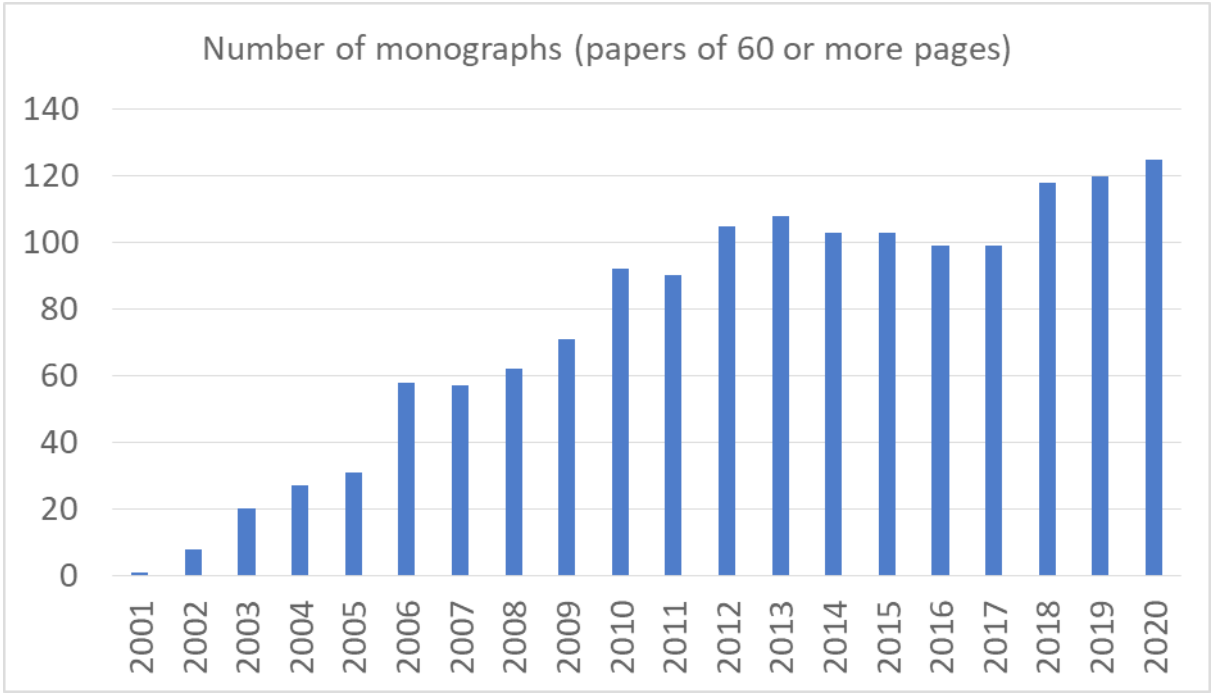

FIGURE 2. The number of monographs (papers of 60 printed pages or more) published in *Zootaxa* from 2001 to 2020.

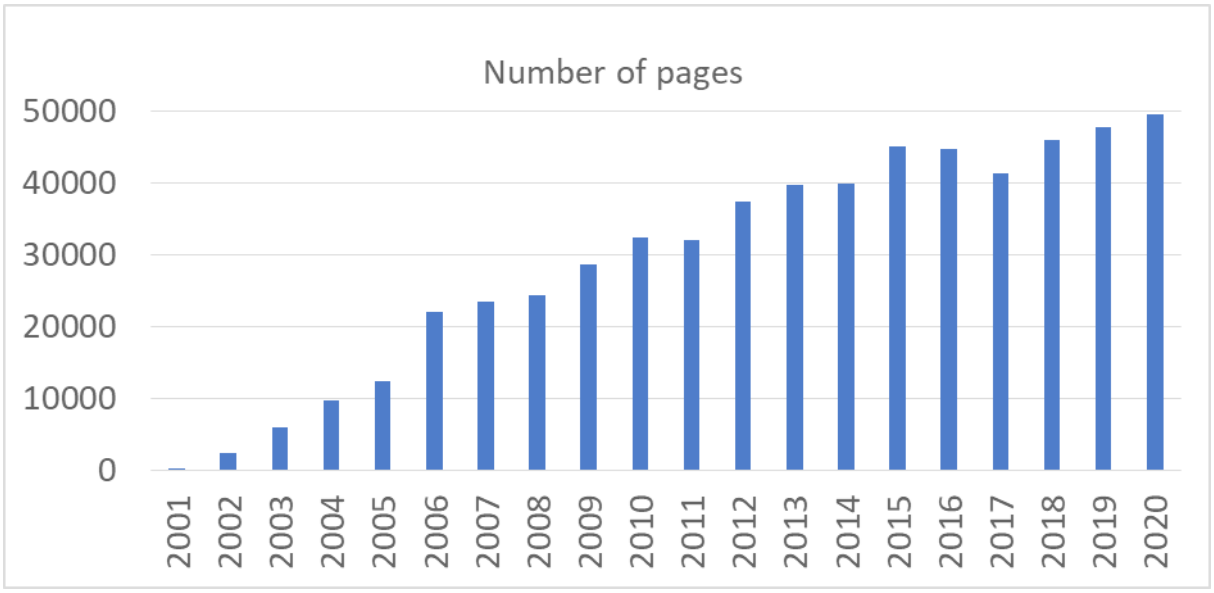

FIGURE 3. The number of pages published in *Zootaxa* from 2001 to 2020.

Quite significantly, *Zootaxa* published 1,499 monographs over the last twenty years, increasing from one in 2001 to 125 in 2020 (Fig. 2). During the last ten years, it published on average more than two monographs per week. The largest book is 1,259 pages (Tucker 2004).

Zootaxa published a total of 585,347 pages from 2001 to 2020, increasing from 302 pages in 2001 to 49,504 in 2020 (Fig. 3). Over the past ten years, it published on average 42,357 pages per year or 814 pages per week.

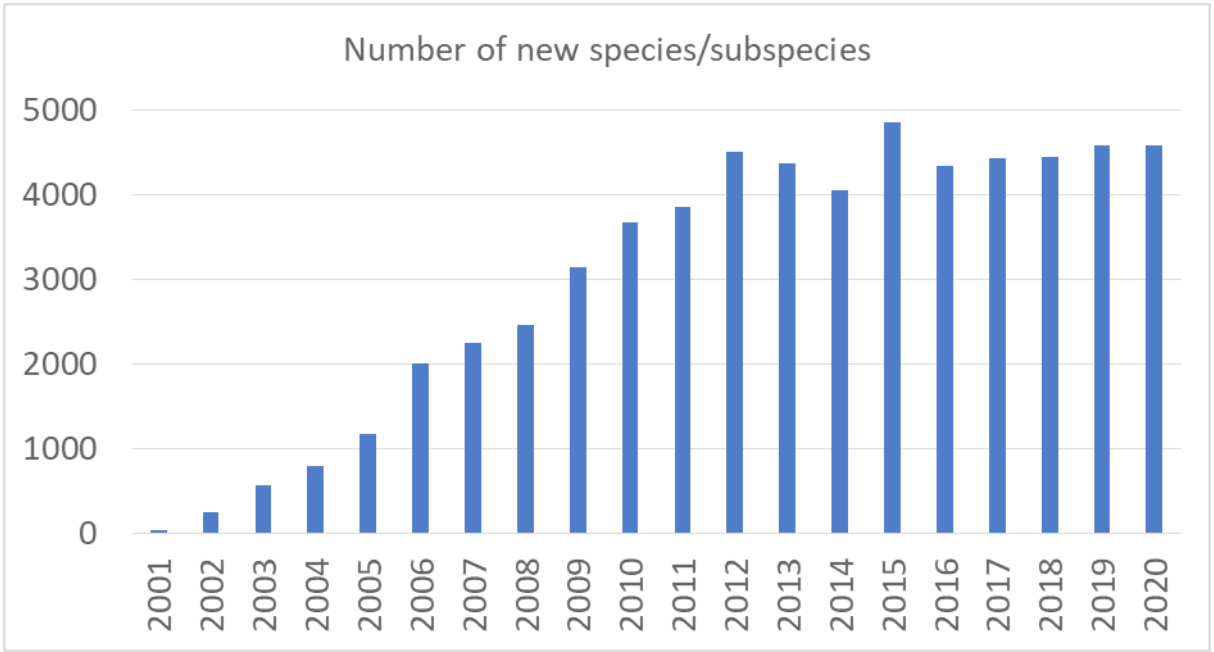

FIGURE 4. The number of new species (subspecies) published in *Zootaxa* from 2001 to 2020. Data extracted from *Zoological Record* using "Systematics Controlled Terms" (date of search 17 Feb 2021).

Outstanding contributions to biodiversity discovery

One of the primary missions of *Zootaxa* is to promote descriptions of unknown species. *Zootaxa* excelled in doing this: nearly 70% of the papers include at least one new species or subspecies. *Zootaxa* published a total of 60,470 new species (subspecies) during the last twenty years (2001 to 2020), increasing from only 46 in 2001 to 4,592 in 2020 (Fig. 3). During the second decade, it published on average 4,408 new species (subspecies) per year (or 85 per week).

Zootaxa published 272 new subgenera, 4,206 new genera, 26 new subtribes, 152 new tribes, 234 new subfamilies, 170 new families, 9 new superfamilies, 41 new taxa (outside of the species, genus and family groups), and 996 new names in the last two decades. *Zootaxa* also published 12,684 new synonyms during the same period.

In 2007, *Zootaxa* accounted for 14.0% of all new taxa indexed in *Zoological Record* that year (Zhang 2010). This increased to 20.0% in 2010 (Zhang 2011), to 24.0% over the five years between 2009 and 2013 (Zhang 2014), and to 26.6% during the last few years since 2005 (Fig. 5). The latter is especially significant because it is 434.9% times that of in the second ranked journal (*ZooKeys*), which accounted for only 6.1% of the total (Fig. 5).

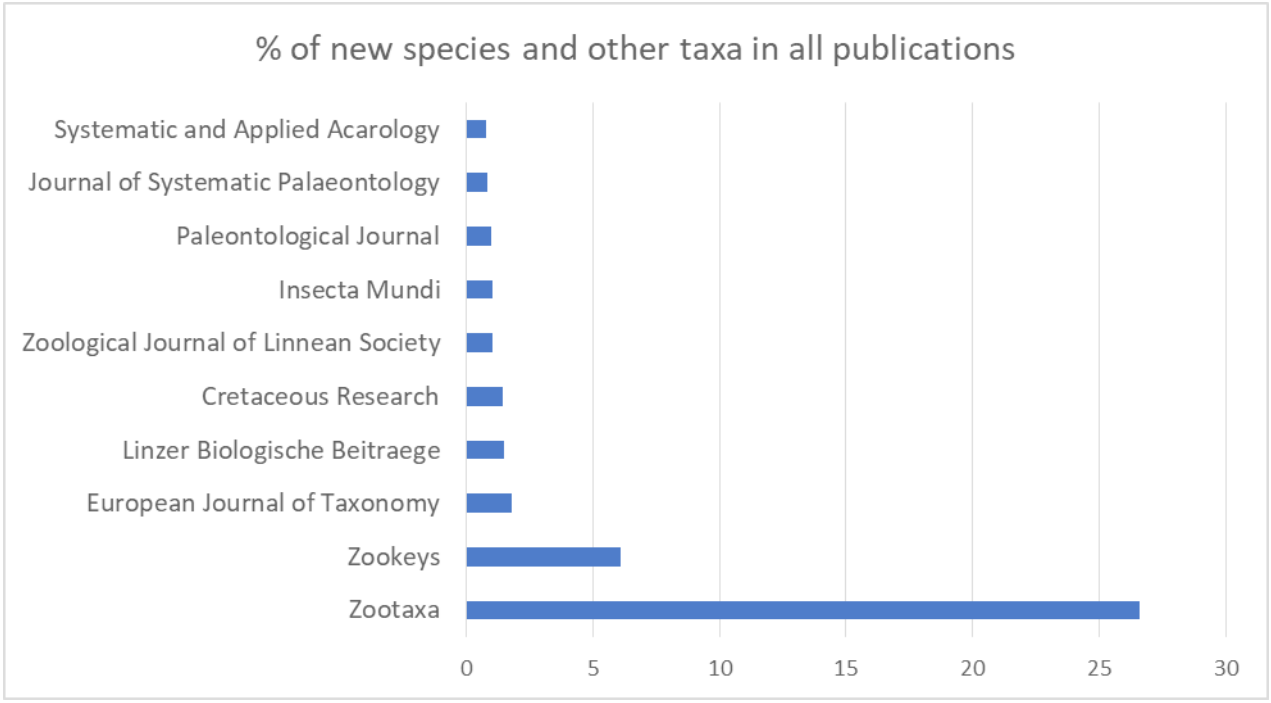

FIGURE 5. Top-10 journals published the greatest number of new taxa based on indexed data in *Zoological Record* from 2015 onwards. Data from Clarivate Index to Organism Names (Top Systematics Journals): http://www.organismnames.com/metrics.htm?page=tsj (accessed 25 May 2021).

Significant impacts on advancing taxonomy

Zootaxa has helped taxonomists overcome the impediment to the publication of taxonomic papers and monographs by accelerating especially the description of the world's new species and other taxa. In the process it has also delivered a few other benefits due to the special advantages of its publishing model and its leadership position in taxonomic journals. Some of these were discussed before (Zhang 2010, 2011, 2014). I would like to highlight the following here.

Unleashed the productivity of taxonomists. *Zootaxa* gives taxonomists the peace of mind that their works, regardless of length, can be published without cost to them, if they are of good quality and approved by their peers. There is also no limit on the number of papers they can publish. This has unleashed the productivity of taxonomists and is especially true for the best of their taxonomic works, the monographs. No one wants to invest a huge amount of time and resources in preparing a large taxonomic monograph if he or she knows that there is no outlet for it. This was the situation for many taxonomists before *Zootaxa* was founded, and was indeed one of my primary motives for

establishing *Zootaxa*. *Zootaxa* has enabled thousands of taxonomists to publish their works rapidly and free of fees. From 2001 to 2011, 9,382 authors from 131 countries published in *Zootaxa*, with four developing countries rich in biodiversity (Brazil, China, Argentina and Mexico) among the top 10 (Fig. 6). The number of authors continued to increase over the years (Fig. 7). By the end of 2020, the number of authors exceeded 28,000 (Table 1). The top two authors (both from China) published on average nearly 20 papers in one year, whereas about 61% of authors published only one paper and 15% of the authors published two papers over the twenty years (Table 1). The growth of the number of monographs (Fig. 2) is a real testament to the role played by *Zootaxa* in unleashing the productivity of taxonomists. Six of the top-10 most cited papers in *Zootaxa* are monographs and three others are checklists or reviews of a monographic nature although shorter than 60 pages (Table 2).

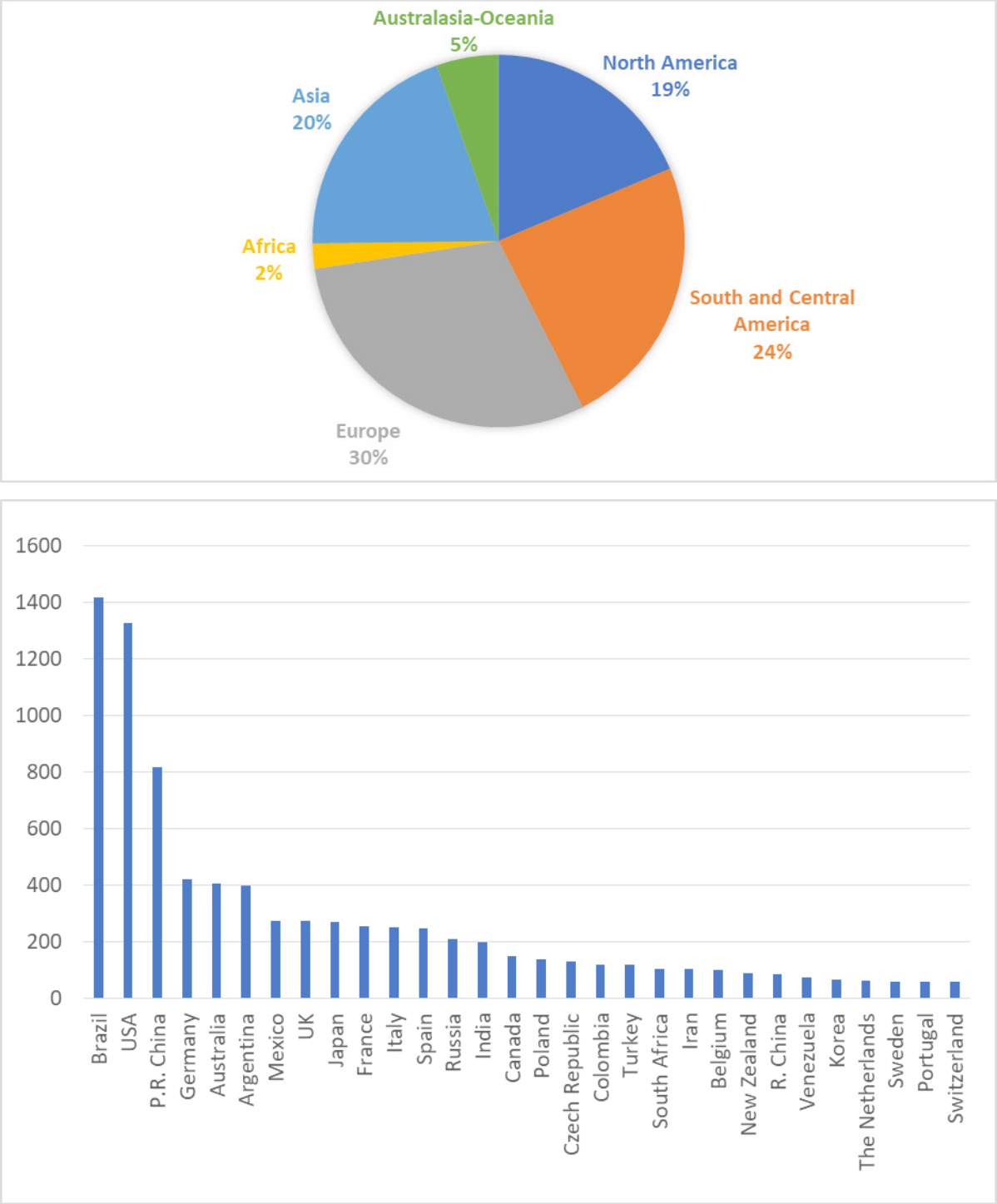

FIGURE 6. Distribution of 9,382 authors in *Zootaxa* from 2001 to 2011 among continents (upper pie chart) and among countries (lower bar chart, only the top 30 of the 131 countries shown due to space limitation).

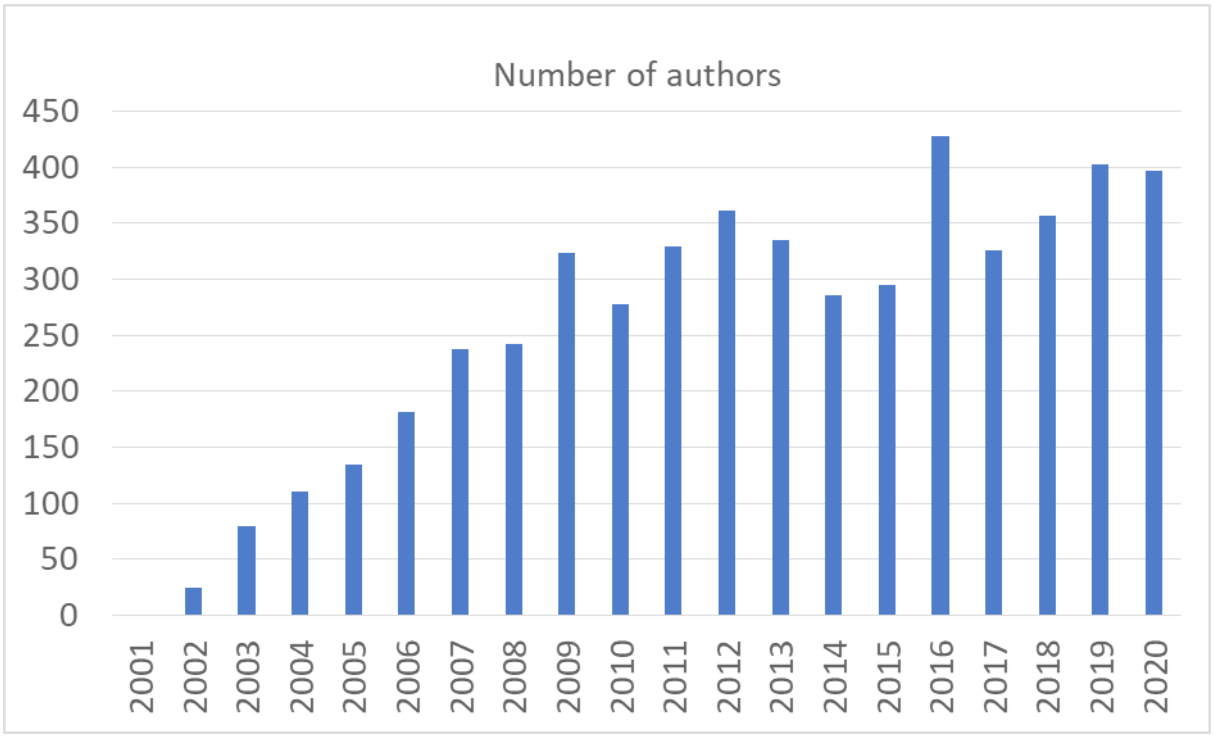

FIGURE 7. The number of authors published in *Zootaxa* from 2001 to 2020.

Quotes

- "Without question, one indisputable publishing success in the field of zoological nomenclature is the taxonomic mega-journal Zootaxa..... this publishing sensation has come from nowhere in 2001 to dominate the taxonomic publishing landscape as the world's largest taxonomic journal."—Smith (2010)

- "Zootaxa ... is taxonomic publishing on a grand scale."—Rod Page (2010) http://iphylo.blogspot.com/2010/08/

- "Since its establishment, Zootaxa has become a prestigious forum for promotion and discussion of all topics of taxonomic science and thus reached a distinguished position among other similar journals. Unquestionably, the birth of the journal was a milestone to the field of zoological taxonomy."—Pinto *et al.* (2021)

TABLE 1. Top 10 authors (family name first, ranked by numbers of publications) of *Zootaxa* from 2001 to 2020 (Data as of 25 May from *Zoological Record*).

Number of papers	Names	Country
198	YANG DING	China
198	ZHANG YALIN	China
162	JALOSZYNSKI PAWEL	Poland
154	NG PETER K L	Singapore
112	GRISMER L LEE	USA
108	KOMAI TOMOYUKI	Japan
106	LI WEIHAI	China
101	VOLYNKIN ANTON V	Russia
96	SANTOS-SILVA ANTONIO	Brazil
94	DE MORAES GILBERTO J	Brazil
81–90	4 authors	China 3, Brazil 1
71–80	11 authors	China 4, various
61–70	12 authors	China 3, various
51–60	15 authors	China 7, various
41–50	28 authors	China 2, various
31–40	75 authors	China 12, various
21–30	202 authors	China 27, various
11–20	892 authors	China 82, various
6–10	1,671 authors	Various
5	752 authors	Various
4	1,129 authors	Various
3	2,084 authors	Various
2	4,326 authors	Various
1	17,564 authors	Various

TABLE 2. Top 10 most-cited papers from 2001–2020 in *Zootaxa*. Ranked by citations from Web of Science (WoS) as of 25 May 2021.

Rank	Publication	Cites in WoS
1	Morrone, J.J. (2014) Biogeographical regionalisation of the Neotropical region. *Zootaxa*, 3782, 1–110.	530
2	Hedges, S.B.; Duellman, W.E. & Heinicke, M.P. (2008) New World direct-developing frogs (Anura: Terrarana): Molecular phylogeny, classification, biogeography, and conservation. *Zootaxa*, 1737, 1–182.	367
3	Coetzee, M., Hunt, R.H.; Wilkerson, R., Torre, A.D., Coulibaly M.B. & Besansky, N.J. (2013) *Anopheles coluzzii* and *Anopheles amharicus*, new members of the *Anopheles gambiae* complex *Zootaxa*, 3619(3), 246–274.	296
4	Guglielmone, A.A., Robbins, R.G., Apanaskevich, D.A., Petney, T.N., Estrada-Peña, A., Horak, I.G., Shao, R. & Barker, S.C. (2010) The Argasidae, Ixodidae and Nuttalliellidae (Acari: Ixodida) of the world: a list of valid species names. *Zootaxa*, 2528, 1–28.	268
5	Koehler, J., Jansen, M., Rodriguez, 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.	265

...Continued on the next page

TABLE 2. (Continued)

Rank	Publication	Cites in WoS
6	Daly, M., Brugler, M.R., Cartwright, P., Collins, A.G., Dawson, M.N., Fautin, D.G., France, S.C., McFadden, C.S., Opresko, D.M., Rodriguez, E., Roman, S. L. & Stake, J.L. (2007) The phylum Cnidaria: A review of phylogenetic patterns and diversity 300 years after Linnaeus. *Zootaxa*, 1668, 127–182.	258
7	Arnold, E.N., Arribas, O. &Carranza, S. (2007) Systematics of the Palaearctic and Oriental lizard tribe Lacertini (Squamata: Lacertidae: Lacertinae), with descriptions of eight new genera. *Zootaxa*, 1430, 1–86.	247
8	Moraes G.J. de McMurtry, J.A., Denmark, H.A. & Campos, C.B. (2004) A revised catalog of the mite family Phytoseiidae. *Zootaxa*, 434, 1–494	246
9	Segers, H. (2007) Annotated checklist of the rotifers (Phylum Rotifera), with notes on nomenclature, taxonomy and distribution. *Zootaxa*, 1564, 1–104.	245
10	Guidetti, R. & Bertolani, R. (2005) Tardigrade taxonomy: an updated check list of the taxa and a list of characters for their identification. *Zootaxa*, 845, 1–46.	220

- The top-cited (1814 times) item in the WoS for *Zootaxa* is Zhang Z.Q. (Ed.) (2011) Animal biodiversity: An outline of higher-level classification and taxonomic richness. *Zootaxa*, 3128, 1–237. This book is a collection of small papers but was indexed as a single item in WoS due to its editorial policy. Thus, it is not directly comparable with other individual papers and therefore not listed in this table.

Zootaxa published 5,192 open access papers, increasing from zero in 2001 to an average of 352 per year over the past decade (Fig. 8). The relatively low rate of open access (17.4%) reflects the fact that taxonomists are poorly funded and reaffirms the importance of *Zootaxa* as a forum for most taxonomists (Table 3). One exception is Thysanoptera: over half of the papers are for open access (Mound & Cavalleri 2021).

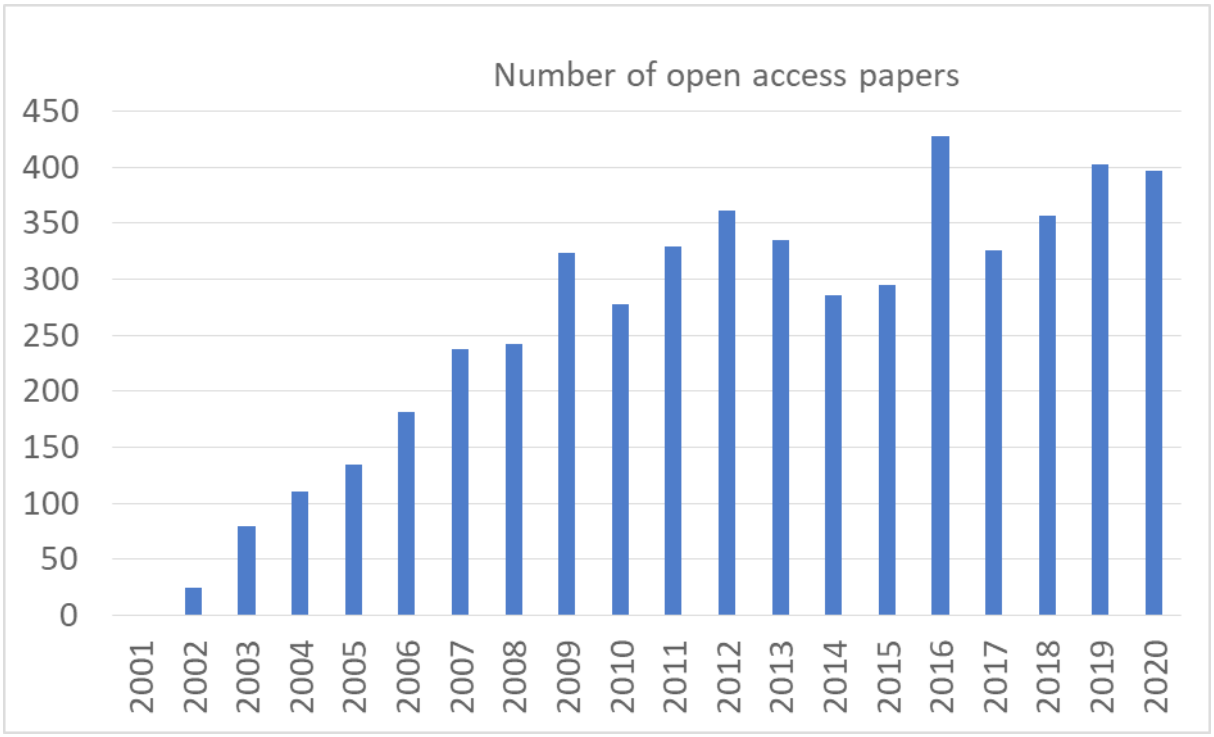

FIGURE 8. The number of open-access papers published in *Zootaxa* from 2001 to 2020.

TABLE 3. Rejection rates for papers published in Zootaxa during 2001 to 2020.

Section	Rejection rates (%)	References
Porifera	13.0%	Hooper *et al.* (2021)
Cnidaria: Anthozoa: Scleractinia	60.0%	Cairns & Baron-Szabo (2021)
"Vertebrates": Amphibians	28.0%	Rivera-Correa *et al.* (2021)
"Vertebrates": Snakes	24.0%	Deepak *et al.* (2021)
"Vertebrates": Mammals	48.0%	Cordeiro-Estrela *et al.* (2021)
Nematoda	"about 10%"	Hodda (2021)
Arthropoda: Arachnida: Opiliones	13.4%	Pérez-González *et al.* (2021)
Arthropoda: Arachnida: Acariformes	24.0%	Zhang *et al.* (2021)
Arthropoda: Arachnida: Mesostigmata	19.1%	Zhang *et al.* (2021)
Arthropoda: Arachnida: Araneae	25.5%	Jäger *et al.* (2021)
Arthropoda: Insecta: Ephemeroptera	14.3%	Jacobus *et al.* (2021)
Arthropoda: Insecta: Termites	"about 25%"	Constantino (2021)
Arthropoda: Insecta: Diptera	21.0%	Whitmore *et al.* (2021)
Arthropoda: Insecta: Thysanoptera	1.9%	Mound & Cavalleri (2021)
Arthropoda: Insecta: Hemiptera: Coccomorpha	2.0%	Hodgson *et al.* (2021)
Arthropoda: Insecta: Lepidoptera	"about 10%"	Brown *et al.* (2021)
Annelida	14.5%	Magalhães *et al.* (2021)
Bryozoa	2.6%	Gordon & Bock (2021)

TABLE 4. Open access rates for papers published in *Zootaxa* from 2001 to 2020.

Section	Open access rates	References
Overall for the journal	17.4%	This paper
Porifera	17.0%	Hooper *et al.* (2021)
Cnidaria: Anthozoa: Scleractinia	15.6%	Cairns & Baron-Szabo (2021)
"Vertebrates": Amphibians	6.2%	Rivera-Correa *et al.* (2021)
"Vertebrates": Snakes	10.7%	Deepak *et al.* (2021)
"Vertebrates": Mammals	12.6%	Cordeiro-Estrela *et al.* (2021)
Nematoda	15.0%	Hodda (2021)
Arthropoda: Tardigrada	"<10.0%"	McInnes *et al.* (2021)
Arthropoda: Arachnida: Opiliones	8.5%	Pérez-González *et al.* (2021)
Arthropoda: Arachnida: Acari	8.5%	Zhang *et al.* (2021)
Arthropoda: Collembola	7.8%	Greenslade & Weiner (2021)
Arthropoda: Insecta: Thysanoptera	"over 50%"	Mound & Cavalleri (2021)
Arthropoda: Insecta: Ephemeroptera	9.0%	Jacobus *et al.* (2021)
Arthropoda: Insecta: Odonata	3.2%	Paulson & Marinov (2021)
Arthropoda: Insecta: Megaloptera	6.3%	Letardi *et al.* (2021)
Arthropoda: Insecta: Neuroptera and Raphidioptera	15.3%	Letardi *et al.* (2021)
Arthropoda: Insecta: Termites	20.0%	Constantino (2021)
Arthropoda: Insecta: Diptera	"about 15%"	Whitmore *et al.* (2021)
Arthropoda: Minor insect orders	3.8%	Bernard & Whittington (2021)
Annelida	18.4%	Magalhães *et al.* (2021)
Acanthocephala	3.1%	Monks (2021)
Bryozoa	12.9%	Gordon & Bock (2021)

Editors as keys to the network effects of increased collaboration. Nearly thirty thousand authors, reviewers and editors have joined *Zootaxa* and our expert editors have played a key role in this community in ensuring the quality of publications as well as facilitating the network effects of increased collaboration (Zhang 2014). Our expert editors, in many cases from the West, help authors from developing countries, as Mound and Cavalleri (2021) well said "they provide much help to authors in shaping manuscripts to ensure that the submitted information is both appropriate, scientifically correct, novel and clearly expressed." The rejection rates were relatively low for many groups due to this reason (Table 4) and the fact that most research behind the papers were of good quality.

Many North-South collaborations have developed, maximising the complementarity between (1) abundant human capability and biodiversity, as well as low cost of labour and research in developing countries and (2) the expertise of researchers and good infrastructure (museums and libraries) in the North.

Beyond *Zootaxa*. The success of *Zootaxa* inspired a new generation of journals, including successful ones such as *Phytotaxa* (the second largest journal in taxonomy for plants, algae and fungi) and *ZooKeys* (open access, the third largest in taxonomy). *Zootaxa* has shared the success of its economy of scale and provided the most important support for Biotaxa.org—an online library for taxonomic journals—which has helped small journals from individual researchers, museums, and other organizations (many of these in developing countries) to go online, reduce cost or be archived to fulfil the requirements of the International Code of Zoological Nomenclature.

Acknowledgements

I thank all the authors, reviewers, editors, and support staff of *Zootaxa* for their help and support. I also thank the review and editorial support of Dr Ernest Bernard for the manuscript on Diptera and Dr Andrew Whittington for the manuscript on Acari for this special volume. Dr Qing-Hai Fan kindly reviewed and commented on this manuscript. Lilian Zhang helped with Figure 6 and commented on the draft of this manuscript.

References

Bernard, E.C. & Whittington, A.E. (2021) Papers and new species of minor insect orders published in *Zootaxa*, 2001–2020. *Zootaxa*, 4979 (1), 232–235.
https://doi.org/10.11646/zootaxa.4979.1.26

Brown, J.W., Byun, B.-K. & Kim, D.-S. (2021) A brief history of Lepidoptera section contributions to Zootaxa. *Zootaxa*, 4979 (1), 228–231.
https://doi.org/10.11646/zootaxa.4979.1.25

Cairns, S.D. & Baron-Szabo, R.C. (2021) A brief review of the stony coral (Cnidaria: Anthozoa: Scleractinia) papers published by Zootaxa in its first 20 years. *Zootaxa*, 4979 (1), 212–214.
https://doi.org/10.11646/zootaxa.4979.1.19

Constantino, R. (2021) Termite taxonomy from 2001–2021: the contribution of Zootaxa. *Zootaxa*, 4979 (1), 222–223.
https://doi.org/10.11646/zootaxa.4979.1.22

Cordeiro-Estrela, P., Feijó, A., Gaubert, P., Weksler, M., Hautier, L., Velazco, P.M., Teta, P., Fabre, P.-H., Veron, G. & Braun, J.K. (2021) The role and impact of Zootaxa in mammalogy in its first 20 years. *Zootaxa*, 4979 (1), 70–94.
https://doi.org/10.11646/zootaxa.4979.1.10

Deepak, V., Passos, P., Nagy, Z.T., Zaher, H., Šmíd, J., Nguyen, T.Q., Carranza, S., Cisneros-Heredia, D.F., David, P., Tamar, K. & Gower, D.J. (2021) Contributions to ophiology in Zootaxa 2001–2020: patterns and trends. *Zootaxa*, 4979 (1), 17–22.
https://doi.org/10.11646/zootaxa.4979.1.4

Greenslade, P. & Weiner, W.M. (2021) Taxonomic papers on Collembola in Zootaxa, 2001 to 2020. *Zootaxa*, 4979 (1), 215–217.
https://doi.org/10.11646/zootaxa.4979.1.20

Gordon, D.P. & Bock. P.E. (2020) Phylum Bryozoa Ehrenberg, 1831 in the first twenty years of Zootaxa. *Zootaxa*, 4979 (1), 236–239.
https://doi.org/10.11646/zootaxa.4979.1.27

Hodda, M. (2021) Papers published in Zootaxa concerning Nematoda from 2001 to 2020. *Zootaxa*, 4979 (1), 95–101.
https://doi.org/10.11646/zootaxa.4979.1.11

Hodgson, C., Denno, B. & Watson, G.W. (2021) The Infraorder Coccomorpha (Insecta: Hemiptera). *Zootaxa*, 4979 (1), 226–227.
https://doi.org/10.11646/zootaxa.4979.1.24

Hooper, J.N.A., Wörheide, G., Hajdu, E., Erpenbeck, D., De Voogd, N.J. & Klautau, M. (2021) Zootaxa 20 years: Phylum Porifera. *Zootaxa*, 4979 (1), 38–56.
https://doi.org/10.11646/zootaxa.4979.1.8

Jacobus, L.M., Salles, F.F., Price, B., Pereira-Da-Conceicoa, L., Dominguez, E., Suter, P.J., Molineri, C., Tiunova, T.M. & Sartori, M. (2021) Mayfly taxonomy (Arthropoda: Hexapoda: Ephemeroptera) during the first two decades of the twenty-first century and the concentration of taxonomic publishing. *Zootaxa*, 4979 (1), 25–30.
https://doi.org/10.11646/zootaxa.4979.1.6

Jäger, P., Arnedo, M.A., Azevedo, G.M.H.F., Baehr, B., Bonaldo, A.B., Haddad, C.R., Harms, D., Hormiga, G., Labarque, F.M., Muster, C., Ramírez, M.J. & Santos, A.O J. (2021)Twenty years, eight legs, one concept: describing spider biodiversity in Zootaxa (Arachnida: Araneae). *Zootaxa*, 4979 (1), 131–146.
https://doi.org/10.11646/zootaxa.4979.1.14

Letardi, A., Bowles, D.E. & Liu, X.Y. (2021) Papers published in Zootaxa concerning Neuropterida. *Zootaxa*, 4979 (1), 147–154.
https://doi.org/10.11646/zootaxa.4979.1.15

Magalhães, W.F., Hutchings, P., Oceguera-Figueroa, A., Martin, P., Schmelz, R.M., Wetzel, M.J., Wiklund, H., Maciolek, N.J., Kawauchi, G.Y. & Williams, J.D. (2021) Segmented worms (Phylum Annelida): a celebration of twenty years of progress through Zootaxa and call for action on the taxonomic work that remains. *Zootaxa*, 4979 (1), 190–211.
https://doi.org/10.11646/zootaxa.4979.1.18

McInnes, S.J., J¸rgensen, A. & Michalczyk, Ů. (2021) 20 years of Zootaxa: Tardigrada (Ecdysozoa: Panarthropoda). *Zootaxa*, 4979 (1), 23–24.
https://doi.org/10.11646/zootaxa.4979.1.5

Monks, S. (2021) Zootaxa 20th Anniversary section Acanthocephala. *Zootaxa*, 4979 (1), 31–37.
https://doi.org/10.11646/zootaxa.4979.1.7

Mound, L.A. & Cavalleri, A. (2021) Zootaxa 20th Anniversary Celebration: Insect Order Thysanoptera. *Zootaxa*, 4979 (1), 224-225.
https://doi.org/10.11646/zootaxa.4979.1.23

Paulson, D.R. & Marinov, M. (2021) Zootaxa 20th Anniversary Celebration: Odonata section. *Zootaxa*, 4979 (1), 218–221.
https://doi.org/10.11646/zootaxa.4979.1.21

Pérez-González, A., Acosta, L.E., Proud, D.N & Hultz, J.W. (2021) Harvestmen in the first twenty years: a scientometric analysis of Zootaxa's contribution to opilionology (Arthropoda, Arachnida, Opiliones). *Zootaxa*, 4979 (1), 102–114.
https://doi.org/10.11646/zootaxa.4979.1.12

Pinto, Â.P., Mejdalani, G., Mounce, R., Silveira, L.F., Marinoni, L. & Rafael, J.A. (2021) Are publications on zoological taxonomy under attack? *Royal Society Open Science*, 8(2), 201617.
https://doi.org/10.1098/rsos.201617

Rivera-Correa, M., Baldo, D., Candioti, F.V., Orrico, V.G.D., Blackburn, D.C., Castroviejo-Fisher, S., Chan, K.O., Gambale, P., Gower, D.J., Quah, E.S.H., Jodi, J., Rowley, L., Twomey, E. & Vences, M. (2021) Amphibians in *Zootaxa*: 20 years documenting the global diversity of frogs, salamanders, and Rivera-Correa, M., Baldo, D., Candioti, F.V., Orrico, V.G.D., Blackburn, D.C., Castroviejo-Fisher, S., Chan, K.O., Gambale, P., Gower, D.J., Quah, E.S.H., Jodi, J., Rowley, L., Twomey, E. & Vences, M. (2021) Amphibians in Zootaxa: 20 years documenting the global diversity of frogs, salamanders, and caecilians. *Zootaxa*, 4979 (1), 59–69.
https://doi.org/10.11646/zootaxa.4979.1.9

Smith, V. (2010) Book review: Systema Naturae 250—The Linnaean Ark. *Systematic Biology*, 59 (6), 757–760.

Tucker, J.K. (2004) Catalog of Recent and fossil turrids (Mollusca: Gastropoda). *Zootaxa*, 682, 1–1295.
https://doi.org/10.11646/zootaxa.682.1.1

Whitmore, D., Gaimari, S.D., Nihei, S.S., Evenhuis, N.L., Kurina, O., Borkent, C.J., Sinclair, B.J., O'Hara, J.E., Zhang, Z.-Q., Moulton, J.K., Ribeiro, G.C., Bickel, D.J., Giłka, W., Andersen, T., Rossaro, B., Whittington, A.E., Lamas, C.J.E., Heller, K., Kehlmaier, C., Courtney, G.W., Kerr, P.H. & Blagoderov, V. (2021) Twenty years of Dipterology through the pages of Zootaxa. *Zootaxa*, 4979 (1), 166–189.
https://doi.org/10.11646/zootaxa.4979.1.17

Zhang, Z.-Q. (2005) Notice from Chief Editor. *Zootaxa*, 1001, 64.
https://doi.org/10.11646/zootaxa.1001.1.5

Zhang, Z.-Q. (2006a) The first five years of Zootaxa. *Zootaxa*, 1111, 68.
https://doi.org/10.11646/zootaxa.1111.1.4

Zhang, Z.-Q. (2006b) The making of a mega-journal in taxonomy. *Zootaxa*, 1385, 67–68.
https://doi.org/10.11646/zootaxa.1385.1.5

Zhang, Z.-Q. (2010) Reviving descriptive taxonomy after 250 years: promising signs from a mega-journal in taxonomy. *In*: Polaszek, A. (ed), *Systema Naturae 250—The Linnaean Ark*. Taylor & Francis, pp. 95–107.

Zhang, Z.-Q. (2011) Accelerating biodiversity descriptions and transforming taxonomic publishing: the first decade of *Zootaxa*. *Zootaxa*, 2896, 1–7.
https://doi.org/10.11646/zootaxa.2896.1.1

Zhang, Z.-Q. (2014) Sustaining the development of world's foremost journal in biodiversity discovery and inventory: *Zootaxa* editors and their contributions. *Zootaxa*, 3753 (6), 597–600.
https://doi.org/10.11646/zootaxa.3753.6.6

Zhang, Z.-Q., Schatz, H., Pfingstl, T., Goldschmidt, T., Martin, P., Pešić, V., Ramírez, M., Schmidt, K.-H., Fan, Q.-H., Mironov, S., Seeman, O. & Halliday, B. (2021) Discovering and documenting Acari: the first twenty years in Zootaxa. *Zootaxa*, 4979 (1), 115–130.
https://doi.org/10.11646/zootaxa.4979.1.13