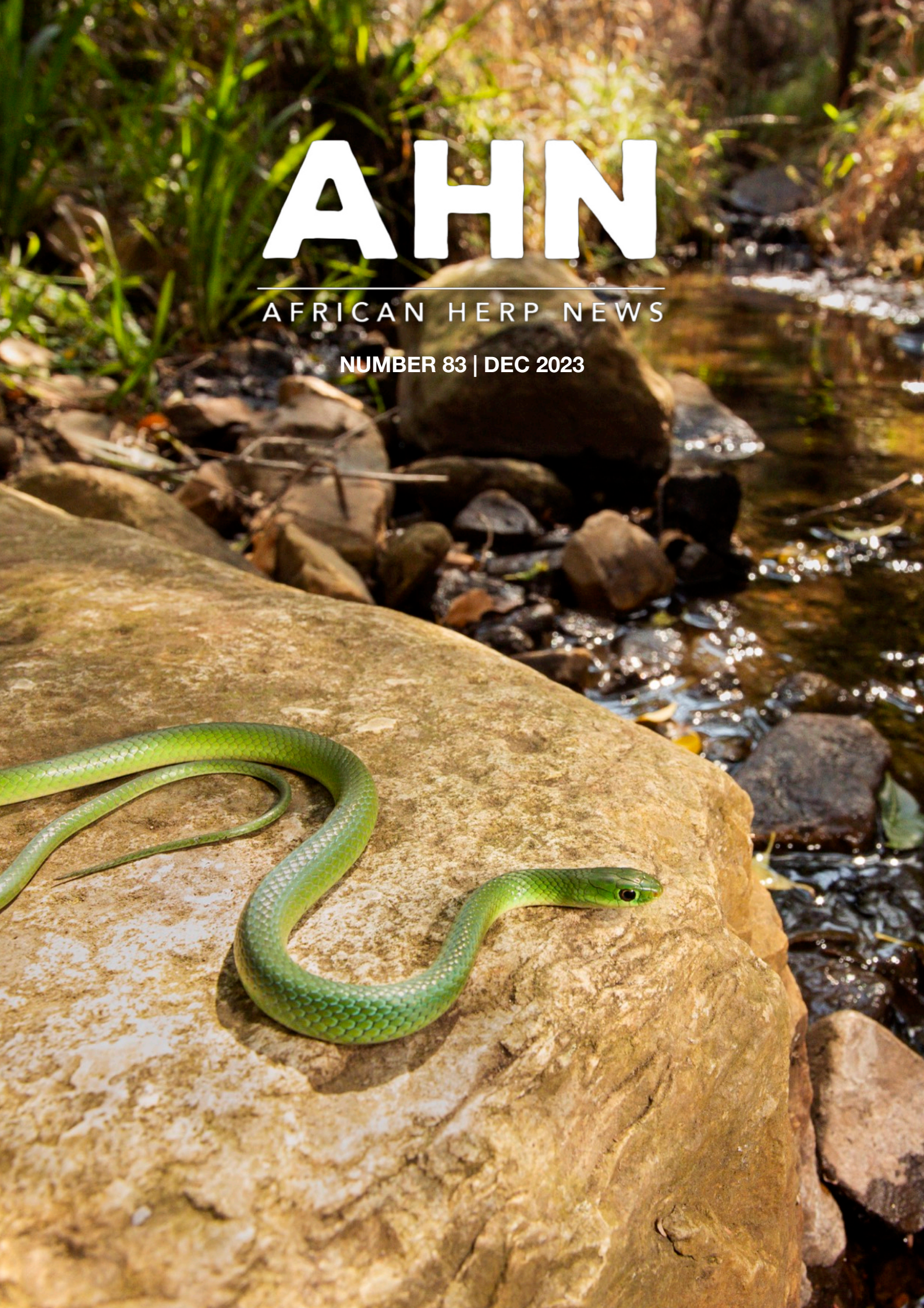

AHN

AFRICAN HERP NEWS

NUMBER 83 | DEC 2023

HAA | HERPETOLOGICAL ASSOCIATION OF AFRICA
www.africanherpetology.org

FOUNDED 1965

The HAA is dedicated to the study and conservation of African reptiles and amphibians. Membership is open to anyone with an interest in the African herpetofauna. Members receive the Association's journal, African Journal of Herpetology (which publishes review papers, research articles, and short communications – subject to peer review, as well as book reviews) and African Herp News, the Newsletter (which includes short communications, natural history notes, bibliographies, husbandry hints, announcements and news items).

NEWSLETTER EDITOR'S NOTE

Articles shall be considered for publication provided that they are original and have not been published elsewhere. Articles will be submitted for peer review at the Editor's discretion. Authors are requested to submit manuscripts by e-mail in MS Word '.doc' or '.docx' format.

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COVER PHOTOGRAPH

Philothamnus hoplogaster Green Water Snake - Courtney R Hundermark Dullstroom, South Africa

:: COMMITTEE OF THE HAA ::

AHN

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AHN

CONTENTS

AHN EDITORIAL

December is already upon us, and with it herp activity in southern Africa has once again increased.This December also marks the end of another HAA Committee term, which means that from January 2024 we will have a new HAA committee. It has been an interesting and busy term for the HAA committee, with our customary biennial conference being held in Hoedspruit in January 2023 and elections for the new committee having been completed in November, among many other activities.We also held another member satisfaction survey to gauge how we as an association are doing, and how and where we can improve.You can read all about what each committee portfolio representative has been up to during the past two years, as well as the outcome of the recent committee elections, in the following pages. There are also several announcements, including a call for applications for the Africa membership awards and several external funding opportunities to attend the 10th World Congress of Herpetology in Malaysia on the island of Borneo next year.

This edition of African Herp News also sees the introduction of a new section, Life Membership Biographies. People who have been members of the Herpetological Association of Africa for 35 years or more and who are of retirement age are eligible to receive a life membership award, giving the recipient free membership of the HAA. In return, we require that recipients provide a brief history of their herpetological career to date, and it is these stories that we will be publishing in Life Membership Biographies. I would like to extend my sincere gratitude to all the members (and non-members) who submitted content to the newsletter during the past year. Thank you also to all those persons who reviewed submissions during the year, to Bryan Little for continuing to typeset and produce the newsletter, and to Warren Schmidt for proofreading most of the editions before they get distributed.To all my fellow committee members–it has been a privilege working with you. To those committee members that are stepping down–thank you for all your efforts and dedication over the past term(s), and I look forward to continuing working with you in various capacities.

I wish you all a merry and peaceful festive season. If you're travelling, do so safely, and enjoy the herping. Stay safe, and I look forward to all the new content that will undoubtedly be submitted next year.

Darren Pietersen
Editor

HAA COMMITTEE FOR 2024–2025

The election for appointments to the HAA Committee for the next term (2024–2025) was completed in November 2023. Voter response was good, with the majority of the membership casting votes. Moreover, voter response was substantially higher than in previous years. Thank you to all those members that took the time to nominate candidates and cast their votes.

The following members were elected to the committee and will assume their portfolios from 1 January 2024 for a two-year term:
Chairperson: Bryan Maritz
Business Administrator: Cora Stobie
Business Manager: Jens Reissig
Journal Editor: Jessica da Silva
Newsletter Editor: Darren Pietersen
Media Portfolio: Chad Keates
Awards Portfolio: Melissa Petford
Students & Early Career Support Portfolio: Hiral Naik
Conferencing Portfolio: Werner Conradie

Three current committee members will be leaving roles on the committee. Nick Evans (Media Portfolio), Jody Barends (Student Support Portfolio) and Chris Cooke (Conferencing Portfolio) leave having each served a term. The HAA thanks you for your service. Special thanks go to Krystal Tolley (Chair) who leaves after completing three terms, having joined the committee in 2018. Krystal has led numerous initiatives to ensure improved governance and legal compliance for the Association.

Thank you to Graham Alexander who, once again, gave his time and effort to serve as Electoral Officer.

As the incumbent chair, I look forward to working with the new committee to help build on the progress that has been made in previous years.

Bryan Maritz

THE HERPETOLOGICAL ASSOCIATION OF AFRICA'S 2023 MEMBERSHIP SATISFACTION SURVEY REPORT

Melissa Petford

Business Administrator

As part of an ongoing process of transformation within the Herpetological Association of Africa (HAA), the HAA committee undertook a membership satisfaction survey from 2–31 August 2023. The overall aim of the survey was to gauge members' current perception of the Association and to gain a deeper understanding of what members expect from the association. The survey responses will be used by the committee to develop action plans tailored to our members preferences and will be used as a baseline for future reference.

METHODOLOGY

The HAA membership satisfaction survey was created in Google Forms with eight main sections: membership benefits, student involvement, contacting members, social media, conferences, the association overall, renewal and discrimination. In addition to this, there was a section at the end of the survey for respondents to add anything else that they wanted to mention about their membership or the association. Prior to these eight main sections were questions relating to respondent demographics including how long they had been a member, whether they were an African or Overseas member and their occupation. Only those who selected students in the occupation section were directed to the student involvement questions. Likewise, only respondents who had attended the 2023 Hoedspruit conference were directed to the conference questions, only those who follow our association on Facebook were directed to answer questions relating to our social media content and only those who stated that they felt discriminated against were directed to further questions relating to that topic. Within each section, questions were asked to gauge how the respondents felt about particular aspects of their membership. Questions ranged between multiple choice, single choice, Likert-scales and text options. The survey was sent to all 180 members via email on 2 August 2023 and the survey closed on 31 August 2023. All responses were anonymous.

RESULTS

Overview Of Responses

Of all HAA members, 22.2% (n=40) responded to the survey. Of these, over half (67.5%, n=27) were African members and most respondents had been members for five years or more (77.5%, n=31; Figure 1). Participants came from a wide variety of occupational backgrounds although the three sectors with the most responses were those from academic researchers based at an institution (52.5%, n=21), retirees (12.5%, n=5) and enthusiasts (12.5%, n=5; Figure 2).

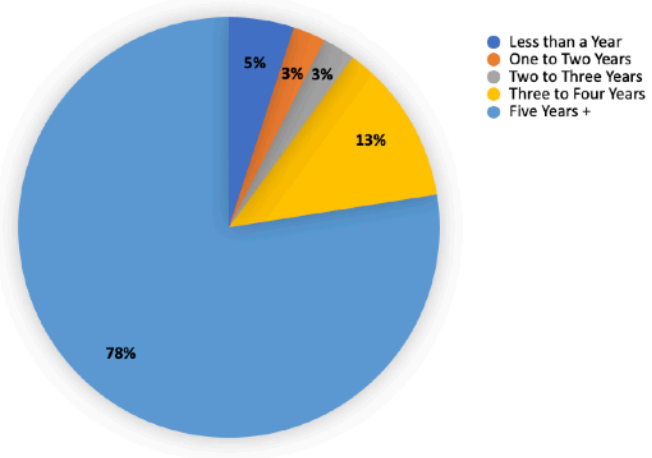


Figure 1. Survey responses by all participants on their duration of membership (n=40).

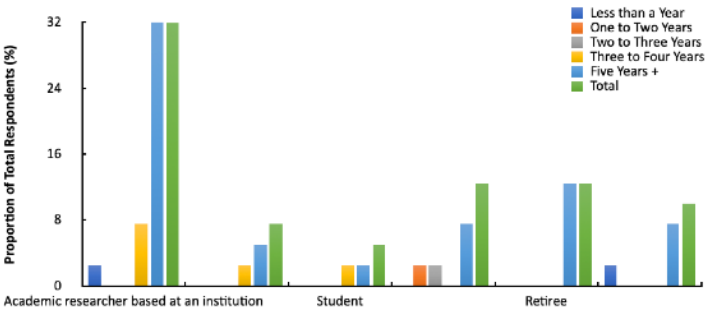


Figure 2. Survey responses on the occupation category of the participants split by duration of membership (n=40).

Membership Benefits

The majority of participants were happy with the member benefits that they receive from the association with 80.0% (n=32) selecting positive responses (Figure 4). Of all member benefits, the two which respondents considered the most valuable were African Herp News (90.0%, n=36) and online access to African Journal of Herpetology (72.5%, n=29; Figure 5). Conversely, the benefit that most participants felt was the least valuable was herpetological content shared on our social media platform (42.5%, n=17; Figure 5).

The majority of participants stated that they read the issues of African Herp News (89.9%, n=62) and African Journal of Herpetology (87.5%, n=35; Figure 6). Most members prefer the current format of AJH distribution, receiving both online and hard copies (47.5%, n=19), while 32.5% (n=13) stated that they would prefer online only (Figure 7).

Participants were also asked whether there was any additional content that they would like to see included in African Herp News. Of the suggested content, the most common were:

- A regular photography competition
- Biomedical content

Participants were also asked whether there were any additional member benefits that they would like to see the HAA implement. Most respondents stated that there was not, yet some of the ideas that were proposed are:

- Reduced publication costs for open access publishing in AJH
- A networking platform
- Taxonomy database of African herpetofauna

The final question members were asked in relation to member benefits was whether they had any recommendations on how the HAA could improve the current benefits. Three main issues were raised:

- More membership activities e.g., photography contests, iNaturalist challenges, virtual events.
- Most benefits seem to be for South African members.
- Hard copies of AJH are severely delayed in South Africa due distribution problems within the South African postal.

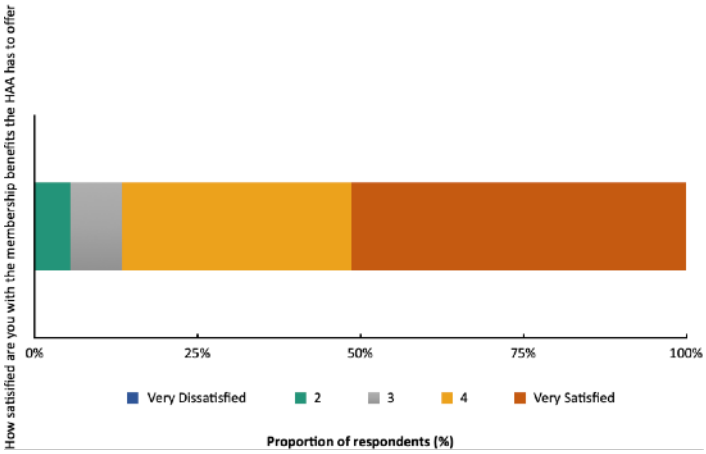


Figure 4. Survey responses by all participants on their satisfaction with the membership benefits of the Herpetological Association of Africa (n=40). Respondents answered questions on a five-level Likert scale from one (very dissatisfied) to 5 (very satisfied).

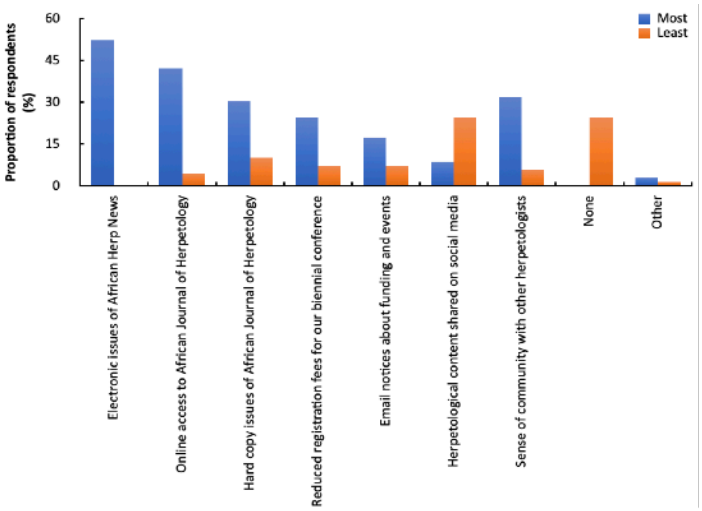


Figure 5. Survey responses by all participants (n=40) on the membership benefits that they find the most and least beneficial. Respondents could select more than one option.

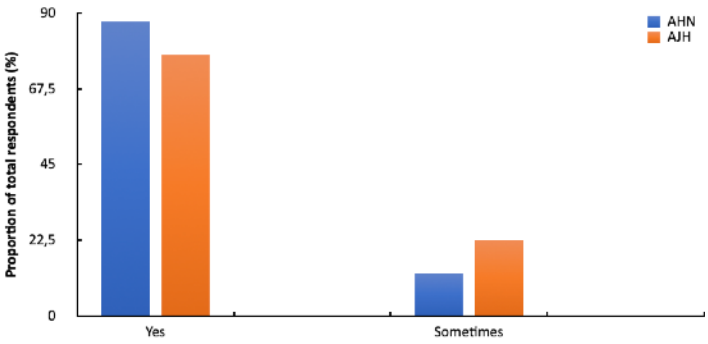


Figure 6. Survey responses by all participants (n=40) on whether they read the issues of the Herpetological Association of Africa's two publications: African Herp News (AHN) and African Journal of Herpetology (AJH).

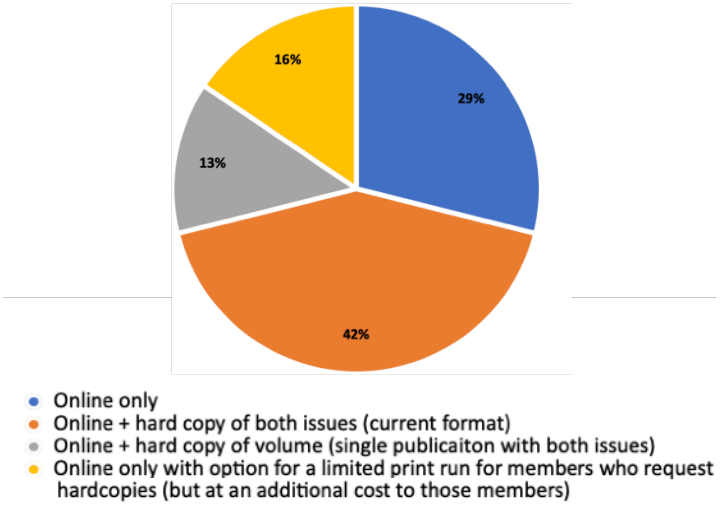


Figure 7. Survey responses by all participants (n=40) on the format option they would prefer to receive the African Journal of Herpetology in.

Student Involvement

Only two students (5%) responded to the survey. One felt that the HAA had increased their academic interaction with the herpetological community, and both gave low scores that being a member had provided them with knowledge-based resources (Figure 8). Student members were also asked what they would like the HAA to implement in order to increase student involvement. The following points were raised:

- Making AJH more user-friendly and cheaper open access fees.
- More regular communications regarding jobs, internships or research opportunities.

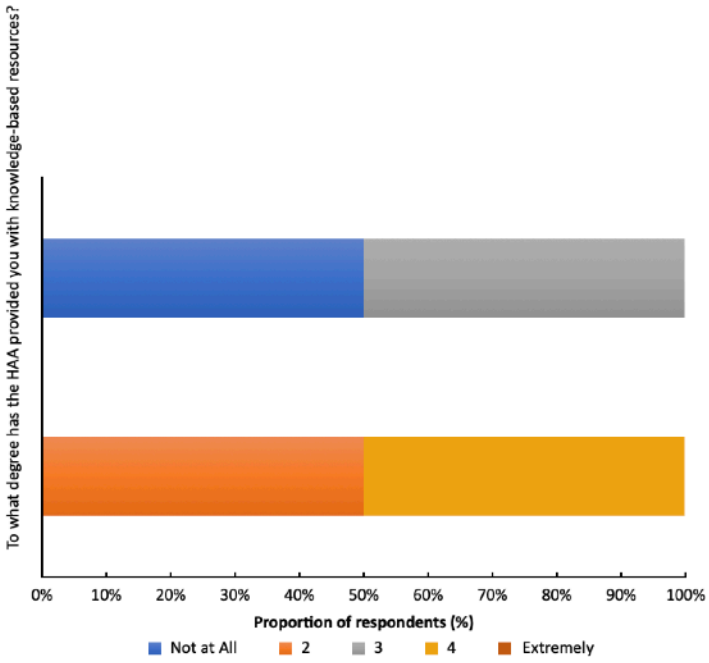


Figure 8. Survey responses by student members (n=2) on how the association has aided their involvement in the herpetological community. Respondents answered the questions on a five-level Likert scale ranging from one (not at all) to five (extremely).

Contacting Members

Most respondents prefer to hear from the association via email (65%, n=26), with the remaining 35% (n=14) stating that they prefer for communications to be broadcasted by both email and social media. When asked about the frequency of email contact from the association, most participants were happy with the current levels (77.5%, n=31; Figure 9). The remaining respondents were mixed between feeling that they are emailed a bit too much and that they could hear from us a bit more often (Figure 9). When asked whether there was any additional content that participants would like to see shared via email, the most common ideas were:

- Research papers.
- Funding, research and job opportunities.
- Sharing ongoing herpetology research in Africa.
- Sending out a communication on the latest AJH issues.

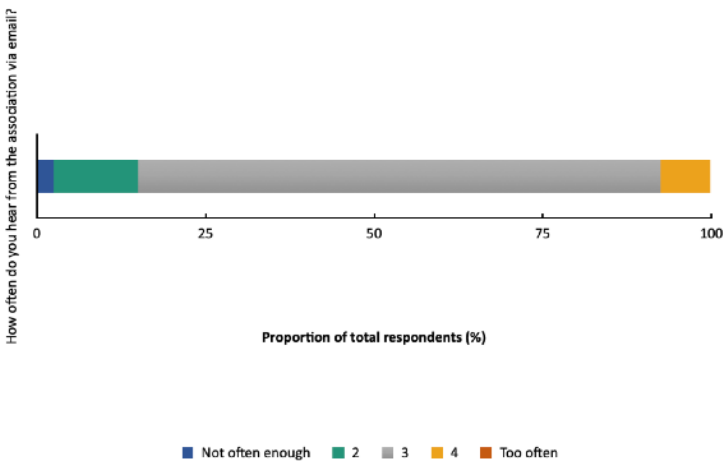


Figure 9. Survey responses by all participants (n=40) on the frequency of email contact. Respondents answered the questions on a five-level Likert scale ranging from one (not often enough) to five (too often).

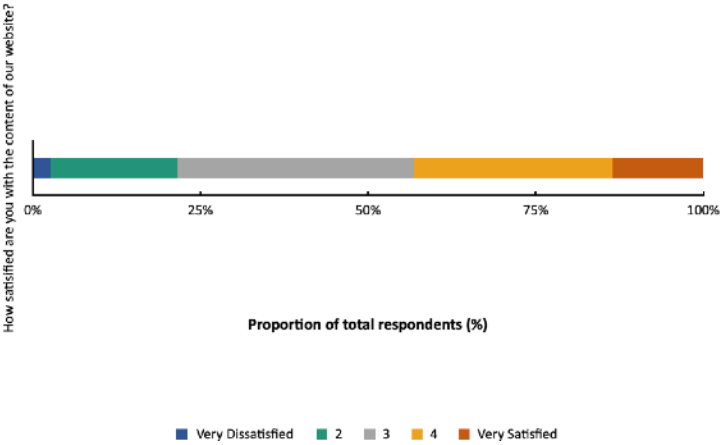


Figure 10. Survey responses by participants who have used the website (n=40) on how satisfied they are with its content. Respondents answered the questions on a five-level Likert scale ranging from one (very dissatisfied) to five (very satisfied).

Social Media

Of the respondents, 57.5% (n=23) follow the association on Facebook. Of those members that follow the Association, 43.5% (n=10) were somewhat satisfied with the content (Figure 11). When asked what additional content participants would like to see on the association's Facebook page, the most common responses were:

- More herp science.
- Promotion of publications by members.
- Photographs by a broader range of members.
- More information about current events, news and senior herpetologists' profiles.

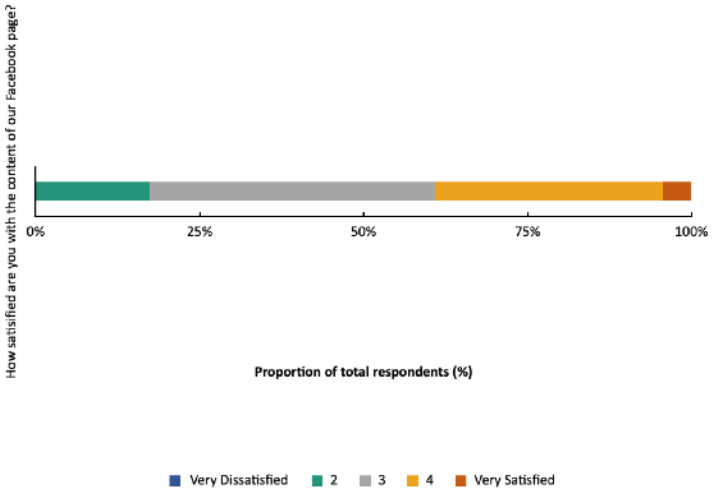


Figure 11. Survey responses by participants on how satisfied they are with the content of the HAA Facebook page (n=23). Respondents answered the questions on a five-level Likert scale ranging from one (very dissatisfied) to five (very satisfied).

Conferences

Just over half of the survey respondents had attended the 2023 conference in Hoedspruit (57.5%, n=23). Most respondents were satisfied with the conference (69.6%, n=26). When asked what they enjoyed most about the 2023 conference, the most common responses were:

- Location.
- Networking.
- Presentations.

When asked what they enjoyed the least, the most common responses were:

- Costs.
- Catering.
- Loadshedding.
- Lack of field activities.

The last question in relation to the conference asked respondents what they would like to see repeated or done differently. Some of the responses were:

- Better catering.
- More social engagement.
- A venue with accommodation and conference facilities on the same premises.
- Lower registration fees.

The Association Overall

The majority of respondents were satisfied with the association as a whole (87.5%, n=35), with one

participant reporting that they were not satisfied (Figure 12). The cost of membership was generally seen as satisfactory (Figure 12). In addition to this, 67.5% (n=27) stated that they were satisfied with the renewal/joining process (Figure 12). When members

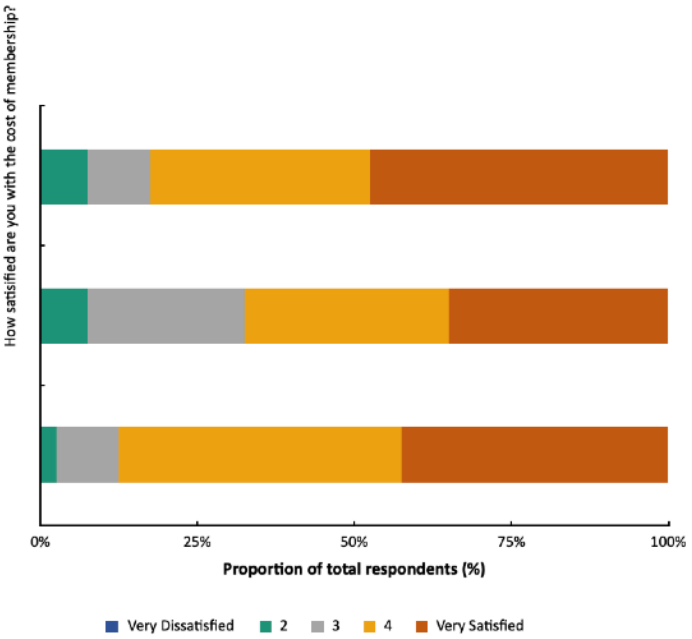


Figure 12. Survey responses by all participants (n=40) on how satisfied they are with the association as a whole, the renewal/joining process and cost of membership. Respondents answered the questions on a five-level Likert scale ranging from one (very dissatisfied) to five (very satisfied).

were asked how satisfied they were with how the association addressed their concerns, 13 respondents (32.5%) stated that this was not applicable. Of the remaining 27 participants, 37.0% (n=10) were very satisfied, 25.9% (n=7) were somewhat satisfied, 29.6% (n=8) were neither satisfied nor dissatisfied while 2.5% (n=1) were somewhat dissatisfied and very dissatisfied. When asked if the respondents were likely to recommend the association to an appropriate friend/colleague, the majority of participants stated that they were likely to do so (90.0%, n=36).

When asked how the association could improve any issues relating to the association as a whole, cost of membership, the renewal/joining process or addressing concerns, the most common responses were:

- Faster responses to queries.
- More affordable open access costs for AJH.
- AHN content to be indexed.

The most common reasons that the respondents had become members were to stay up to date with information regarding herpetology in Africa (84.6%, n=33), subscriptions to the journal and newsletter (76.9%, n=30) and to support the association (69.2%, n=27).

Discrimination

When asked about discrimination, 2.5% (n=1) of all respondents felt that they have been discriminated against or treated unfairly by a member of the association in the past, with two additional participants stating that they may have been discriminated against. Of these responses, one was attributed to race, one did not specify and the other felt that there is a large bias towards South Africans. Of the three respondents, there were no responses as to whether they felt that the association had taken forward their issues in a positive manner or whether the matter had been resolved.

Renewal

Most participants stated that they are likely to renew their membership with the association (92.5%, n=37). Most respondents stated that they will be likely to choose the three-year membership option (87.5%, n=35) with the remaining 12.5% (n=5) likely to select the one-year option. Of all respondents, 75.0% (n=30) were aware that the three-year membership includes a 10% discount. Of those members that are likely to choose a one-year membership, the main factor influencing this decision was due to financial constraints (40.0%, n=2).

Other Matters

At the end of the survey, respondents were asked whether there were any additional points they would like the association to be aware of. The vast majority of these comments were positive and some were also constructive. Some of the constructive comments were:

- African Herp News should be published consistently and on time.

- A directory of field experts should be provided for specific queries e.g., who to contact for queries on zoonotic diseases, snake diets, etc.
- Make it easier for overseas members to participate in the association.

CONCLUSIONS

Overall, the majority of responses were positive in all eight main sections of the survey. The main sections where satisfaction could be improved are within student involvement (although only two students responded) and social media. Specific ways to address these concerns that were mentioned are increasing academic involvement with the herpetological community for students, and improving the content shared on our Facebook page. Discrimination is a further area that the association needs to improve upon with three respondents stating that they have been or may have been discriminated against or been treated unfairly by a member of the association. We would like to remind members that we have a feedback box on our website for both positive and negative comments/experiences and there is an option to submit anonymously. The feedback box can be found at https://africanherpetology.org/haa-contact/feedback-box/.

Two other important issues were raised by several respondents in terms of the high open access fees for the AJH, and that there is a very South African focus in the association. In an attempt to expand membership of the association to more poorly represented regions of Africa, we have implemented a new award comprising of six 3-year memberships to promising herpetologists from across Africa. We hope that this will begin to increase our member representation outside of South Africa. In terms of open access fees, these are set by the publisher, and we are currently exploring additional options. Further inputs and constructive comments in relation to all other sections have been taken on board by the association and we hope to implement some new processes and benefits in the future based on these survey results.

ACKNOWLEDGEMENTS

Thank you to all our members who responded to the survey. Your feedback and constructive comments have been invaluable.

10TH WORLD CONGRESS OF HERPETOLOGY
5–9 August 2024
Kuching, Sarawak, Borneo

Dear HAA members,

A reminder that the 10th World Congress of Herpetology is taking place from 5–9 August 2024 in Malaysia, on the island of Borneo.

Registration and abstract submissions are open, and there are several funding opportunities available for students and postdocs.

More information can be found on their website and Facebook page.

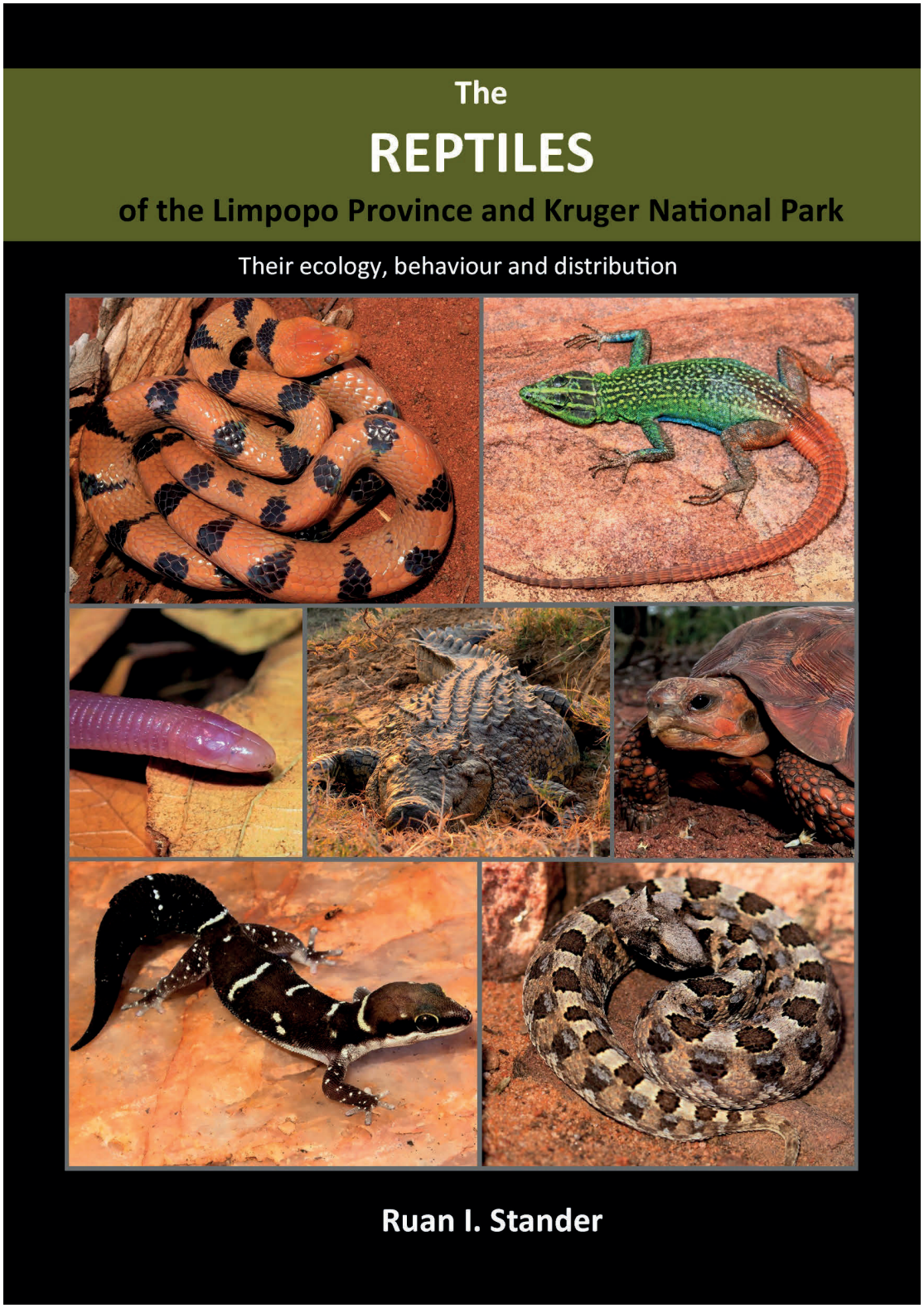
THE REPTILES OF THE LIMPOPO PROVINCE AND KRUGER NATIONAL PARK

Synopsis

Worm or lizard? Legless skink or snake – actually, what is a skink? Reptiles come in a dazzling array of shapes, sizes and colours. The Kruger National Park is home to 125 of South Africa's 434 species. All except six of these living gems also occur in the Limpopo Province, from which a staggering total of 204 species are known. The region boasts the highest reptile diversity in South Africa – half of the country's herpetofauna occurs here and more than 40 species are endemic. Several are newly described and have never been pictured in a popular field guide, while many have undergone significant taxonomic revision. This volume is packed with first-hand information and brings the region's 210 species and their habitats to life with more than 600 photographs. This book is an indispensable resource for any serious African herpetologist, ecologist, nature guide, game ranger and hunter. Nevertheless, it is purposefully crafted to offer a gateway into the fascinating world of reptiles for enthusiasts, budding naturalists and the youth. It includes a foreword by Johan Marais, a detailed overview of the region's biogeography and provides common names in the Sepedi, Xitsonga, Tshivenda and Afrikaans languages.

Author bio

Ruan Stander has been deeply fascinated by all aspects of the natural world since his childhood. He has 15 years' experience working with wild reptiles and has conducted herpetological surveys in Ethiopia, South Africa and Tanzania. Ruan serves on the expert identification panel of the Biodiversity and Development Institute (BDI) and the FitzPatrick Institute of African Ornithology ReptileMAP project. Since 2015, he has diligently studied the reptiles of the Limpopo Province and Kruger National Park – the results of which fill these pages.


The
REPTILES
of the Limpopo Province and Kruger National Park
Their ecology, behaviour and distribution
Ruan I. Stander

CHAIRMAN'S REPORT
2022-2023

The Executive Committee of the HAA had new membership with the inclusion of Jody Barends (Students), Darren Pietersen (Newsletter) and Nick Evans (Media), with all other members continuing (Krystal Tolley as Chairman, Jens Reissig as Treasurer, Melissa Petford as Secretary, Jessica da Silva as Journal Editor, Bryan Maritz for Awards, Chris Cooke for Conferencing). The Conferencing portfolio was a last-minute replacement during 2021 that was appointed by the committee with the stepping down of Beryl Wilson. Unfortunately, the 2021 conference was then delayed due to covid travel restrictions so the position was carried over to the new term. The committee started their terms in January 2022, with the committee meeting quarterly throughout the 2-year term.

Some HAA highlights during 2022–2023 were the inclusion of different languages on the website (Arabic, French, Portuguese and Swahili), finalising of the association's tax clearances and a method for taking in international payments and a successful in-person conference held in Hoedspruit in January 2023. The committee also approved new journal and newsletter policies relating to research ethics and publishing, and a statement of taxonomic principles for publishing. This statement has also been generalised to reflect the ethos of the society regarding the ethical publishing of taxonomic works and will be published on the HAA website and in the newsletter in 2024.

Each committee portfolio now has a set of minimum standards associated with it, which outlines the role of the portfolio member and also provides background for what is involved in serving on the committee in terms of time and effort. In addition, most of the HAA processes now have written Standard Operating Procedures (SOPs) associated with them, for example, conferencing, elections, finances and directorship. Also, the HAA now has a cloud back-up of all documents, allowing long-term tracking of HAA business, as well as easing succession of committee members given that all previous documents are accessible.

The HAA is now a registered non-profit organisation and as such, we have a Board of Directors. Furthermore, the names of some portfolios were considered outdated and have been modernised. The 'Secretary' is now the Business Administrator and the 'Treasurer' is now the Business Manager. While perhaps this is an unnecessary change, it was seen as relevant as the latter portfolio in particular is much more than a Treasurer, having to deal with business compliance, auditing and tax issues.

The committee considered and accepted a proposal from the membership around providing free membership to seniors that qualify under certain conditions (must have been a member for >35 years without a break), but individuals must apply for this benefit and provide a narrative on their contribution to African herpetology to be published in the *African Herp News*.

Other ongoing initiatives the committee is looking into are setting up a "publishing office" to assist the editors in processing manuscripts and having an Annual General Meeting (in alternate non-conference years) using an online platform.

Challenges:
The HAA has consistently struggled to increase participation and membership of researchers and enthusiasts from across all of Africa, and with various options considered via awards and scholarships, this work has now started. Student member uptake has also been fairly limited and as such, the 'students portfolio' has been extended to also address challenges and solutions for Early Career Researchers (ECRs) and Early Career Herpetologists (ECHs). The committee is now investigating drawing in ECR/ECHs to serve on auxiliary panels and to assist with portfolios in the hopes of involving keen ECR/ECHs, possibly providing a pipeline for succession to the committee and/or other HAA initiatives.

In 2022, the HAA received an unanticipated invoice from our journal publisher, Taylor and Francis, for publishing charges which they had neglected to invoice in prior years, and this amounted to ~USD 12 000. This has been settled but did mean that the society was responsible for a large, unexpected expense.

Closing:
An online election was held in September/October 2023 for a new committee to serve from January 2024–December 2025. Congratulations to all the long-standing and new committee members that will continue the HAA journey, and who will be there to represent African herpetology.

With this report, I extend my farewell as HAA Executive Committee Chairman. I served three consecutive terms (2018–2023) and, in that time (and to my surprise), I inevitably became one of the "HAA-oldies".
Thus, I am very pleased to hand the reigns over to the next generation of capable African herpetologists to bring you all into the future.

Krystal Tolley
Chairperson,
Herpetological Association of Africa

BUSINESS MANAGER'S REPORT
2022-2023

Dear Members!

Another year has come to an end and I would like to thank each and every one of you for your continued support of our Herpetological Association of Africa. Without each and every one of you, we would not be able to exist.

Coming to the business side of things, the association still finds itself in a very good place. All statutory registrations are now in place and up to date as we speak. We have also finally managed to settle all our outstanding debt with Taylor & Francis, leaving us with a clean financial sheet going into 2024. Our bank account has a very good balance in it, and I am pleasantly looking forward to what the future holds for all of us and the association.

I would like to once again thank you all, and would like to wish you and your families all the best for the upcoming year.

Jens Reissig
Business Manager
Herpetological Association of Africa

BUSINESS ADMINISTRATOR'S REPORT

2022–2023

Current membership as of November 2023 consists of 177 members, with 132 from African countries and 45 from non-African countries. This is a slight increase from September 2021. During 2022 we had 26 new members join the association (12 students, 10 professionals and three overseas), and as of November 2023, this year saw 13 new members (1 student, 10 professionals and two overseas).

During the last quarter of 2022 we introduced a new credit card system for membership fees. Those who wish to pay by credit card can contact the Business Manager, Jens Reissig, at treasurer@africanherpetology.org with their membership number and their membership category to receive a payment link. Members are still required to send their proof of payment to the business administrator at secretary@africanherpetology.org.

In August 2023, we initiated a Life Membership application option where eligible members will receive free membership.

To apply, a person must have been a member of the HAA for 35 or more consecutive years, be of retirement age, and must provide a short article detailing their participation in African herpetology over the last 35 years for publication in *African Herp News*.

As of November 2023, we have had three applications, all of which have been accepted. Their contributions to African herpetology will appear over the next three editions of *African Herp News*, the first of which can be found in this issue.

We also distributed a membership survey to all current members in August 2023. The results of this survey can be found in this issue of *African Herp News*. In general, most respondents felt positively about the association, its benefits and the 2023 conference in Hoedspruit. There are still some areas where we can improve, and the next committee will review all comments and suggestions over the next two years. The next membership survey will take place after the 16th HAA conference has taken place.

I would like to thank all of our current members for their continued support of the association.

Melissa Petford
Business Administrator,
Herpetological Association of Africa

AFRICAN JOURNAL OF HERPETOLOGY EDITOR'S REPORT

2022–2023

In January 2022 I officially took over as Journal Editor for the African Journal of Herpetology from Ché Weldon, and hence this report covers the content I have had access to from January 2022 until now, November 2023.

During this time, two volumes have been published, volumes 71 and 72. Issues are scheduled to be published in April and October every year; however, there was a slight delay for 72(2) (only being published in November) due to turnaround in staff with the printers (NISC). These slight growing pains should now be resolved. Prior to Volume 71, a page limit of 200 was set annually. This maximum limit caused problems, at times, regarding which articles got published as it was not always based on time since acceptance. These restrictions have now been removed, and the journal now works on a *minimum of five articles per issue*, regardless of length. It is hoped that this will assist in the improvement of turnaround time from acceptance to publication. Yet, despite the removal of this page limit, Volume 72 did not veer far from the old target (206 pages). I anticipate this will change going forward with increased submissions and acceptances.

The first issue of volume 71 [71(1)] mainly comprised articles previously organized by Prof. Weldon. A breakdown of the content in volumes 71 and 72 is as follows:

Content Type	71(1)	71(2)	72(1)	72(2)
Articles	5	5	6	4
Short Communications	1	2		2
Book Reviews				1
Tributes	1			

I hope all of our members will receive their printed copy of this latest issue shortly, but until then please utilize your free online access. Should this not be functional, please contact me for assistance.

Submissions

With respect to submissions, seven manuscripts were carried over from the previous year (2021), three of which were rejected and four accepted.

In 2022, 26 manuscripts were submitted for consideration. These comprised 21 original articles, two reviews and three short communications. Of these, 12 manuscripts were rejected, six accepted and the remaining eight were still under some form of review or revision and were thus carried forward to 2023.

The year 2023 saw a marked increase in article submissions. Forty submissions were received, with the majority (34) being original full-length articles, one review, and five short communications. In addition to first time submissions, 33 revised manuscripts were received (carry over from 2022, as well as from 2023 decisions). This kept all of our Associate Editors and reviewers very busy this year.

Over the past two years the rejection rate has been ~56% (n = 28). While this may seem rather high, in many instances (42%) rejection was because the content was inappropriate and out of the scope of the journal (i.e., not relating to African herpetology or herpetology in general) or better suited for our sister publication, *African Herp News*. The vast majority of submissions have come from southern Africa, namely South Africa, but we have been seeing more manuscripts coming from other regions of Africa – 8% from East Africa, namely Kenya; 14% from north Africa; and 10% from west Africa. I would like to see these numbers grow, not only in the submissions but also the acceptances, but there are challenges. For example, the resources available in some countries can be limiting. In cases where language might be an issue in a manuscript, efforts are made to work with the authors to improve this aspect.

Turnaround times

One of my focus areas since taking over as Editor has been the reduction in turnaround times – from submission to publication – which was a key issue expressed by authors in the previous member satisfaction survey. To try to address this, I have enlisted more Associate Editors to help spread the workload more evenly and fill in some expertise gaps. Our current list of Associate Editors is:

- Prof. Graham Alexander – University of the Witwatersrand, Johannesburg, South Africa
- Dr Jody Barends - South African National Biodiversity Institute, South Africa
- Dr Luis Ceríaco – Villanova University, Villanova, Pennsylvania, USA
- Prof. Courtney Cook – North-West University, Potchefstroom, South Africa
- Assoc. Prof. Shelley Edwards – Rhodes University, Grahamstown, South Africa
- Dr Harith Farooq – Lúrio University, Pemba, Mozambique
- Dr Melissa Petford – Flora, Fauna & Man Ecological Services Ltd.
- Dr Walter Paulin Tapondjou N. – Florida Museum of Natural History, University of Florida, Florida, USA
- Dr Melita Vamberger – Senckenberg Natural History Collections Dresden, Germany

Dr Edward Stanley recently stepped down from his role as Associate Editor, and I would like to thank him immensely for his many years of service, his extremely insightful critiques and timely handling of submissions. I will be continuing to expand the Editorial Board to help alleviate the workload on the Associate Editors and help further expedite the overall review process.

We are still experiencing some extended turnaround times, mainly due to the length of time that it takes to find the required number of reviewers, and delays caused by the reviewers not submitting their reviews on time. This is not just an AJH issue – it is felt by journals all over the world and is one of the hardest issues to improve upon. Everyone is extremely busy, but I ask that if you do get invited to review an article for the journal that you carefully consider your time commitments and try to make the time to provide this scientific service in a reasonable timeframe – we allow six weeks for reviews to be returned, but welcome these to be submitted as early as possible.

***African Journal of Herpetology* rating**

Every year, journal metrics for the preceding year are released. These metrics give journals and authors a look into how they are performing – how many citations the published work is being given. As such, these scores may determine, or at least play some part in, where authors decide to submit their research. Below I report on the journal metrics for 2021 and 2022 (as these were received in 2022 and 2023, respectively).

Metric	2021	2022
Impact Factor (IF)	2.5	1.5
IF Best Quartile	Q1	Q2
5-year IF	2.0	1.2
Cite Score (Scopus)	2.1	2.6

While 2022 saw a drop in Impact Factor (IF), these metrics are a drastic improvement from the previous years. The 2020 Impact Factor, for example, was 0.61. This improvement is directly related to authors submitting quality research to AJH and then having this research read and cited repeatedly. The drop between 2021 and 2022 was not unexpected, as the 2021 IF can be largely influenced by one or a few articles. To ensure these values are sustained, and better yet improved, we need to continue to publish quality, high impact herpetological research. I therefore urge all members to continue to consider submitting your research to *African Journal of Herpetology*, and encourage non-member colleagues to do the same.

Open Access

African Journal of Herpetology is considered a hybrid journal, meaning it is a subscription journal but with an option for authors to choose for their articles to appear as full Open Access (OA), outside the subscription paywall. Open Access articles are available to download for free by readers immediately upon being published online. For OA articles, authors pay an article processing charge (or APC) to the publisher. To date, four articles have been published OA in *African Journal of Herpetology*. The APCs for *African Journal of Herpetology* available through Taylor & Francis are approximately USD 3 700; however, a discount to African authors may be offered by our printers, NISC, at a rate of ZAR 19 000 per article upon request. Acknowledging these rates are still very high, myself and members of the HAA Executive Committee have been in discussions with Taylor & Francis to see how these can be reduced. We are also exploring other possibilities within the HAA to better serve our members in this regard. All members will be notified of any changes as they arise.

With that said, publishing OA is not and will not become a requirement of *African Journal of Herpetology*. This is solely at the discretion of the authors and/or their institutions. We will remain a hybrid access journal. Articles published via the subscription option are not and should not be considered of lesser quality in any way. I would also like to emphasize that, as soon as all articles are published online (early view), the corresponding author is provided an electronic copy of the article.

Reference style

In 2022, a Mendeley Reference Style was developed by one of our student members, Matthew Adair, to help ensure the referencing format in submissions is correct. This style can be found on the HAA website on the journal page, downloaded and then loaded into Mendeley. Please use this resource and report any issues you may experience with it.

In closing, I want to thank you all for your patience as I have transitioned into this new role. And I greatly thank the advice and consultations that the HAA Executive and Editorial Advisory Committees have provided me thus far.

Jessica M. da Silva
Journal Editor
Herpetological Association of Africa

REPORT OF THE EDITORIAL BOARD, *AFRICAN JOURNAL OF HERPETOLOGY*

2022–2023

A report of activities for the previous calendar year was presented by the Chair at the HAA General Meeting in Hoedspruit on 19 January 2023. Since then, the chair of the committee participated in discussion with the Editor, Chair of the HAA Committee, Business Manager and representatives of Taylor and Francis and NISC about the HAA's publishing agreement and associated finances. The Editorial Board provided two rounds of feedback to the HAA Committee on a draft editorial policy for *African Journal of Herpetology* and *African Herp News*. In early 2023, members of the Editorial Board were asked about their willingness to continue service for another term. This information was collated and passed on to the HAA Committee. The Chair regularly interfaced with the Editor and Chair of the HAA Committee regarding matters arising that were of relevance to the journal and also responded to a small number of emails from HAA members and *African Journal of Herpetology* authors requesting information about *African Journal of Herpetology* policies. Editorial Board members David Blackburn and Aaron Bauer presented information at the Society for the Study of Amphibians and Reptiles (SSAR) board meeting in Norfolk, Virginia, USA regarding a reciprocal agreement between the HAA and SSAR for reduced membership fees (which was approved by the SSAR Board). Various members of the Editorial Board were also engaged in activities to promote HAA membership and participation both throughout Africa and abroad. This remains a priority for the Editorial Board and for the HAA, but remains logistically difficult.

Aaron M. Bauer

Chairperson, Editorial Advisory Committee
African Journal of Herpetology

AFRICAN HERP NEWS EDITOR'S REPORT 2022–2023

This report covers *African Herp News* issues 79–83. These five issues combined equate to 271 pages, averaging 54 pages per issue. These five issues featured 14 announcements, one conference synopsis, one set of committee reports, two book notifications, 3 features of Tomorrow's Herpetologists Today, 11 articles, 22 natural history notes, 13 geographic distribution notes, two tributes, and one edition of our new feature, Life Membership Biographies. There are currently nine submissions being processed (either under review or with authors for revisions).

Contributions to the newsletter still predominantly originate from South Africa, although several articles were received from elsewhere in Africa. Because the newsletter is reliant on submissions from the members, there is not much that we can do to increase submissions from elsewhere in Africa, but hopefully as the HAA's reach extends further into Africa, so submissions from these regions will increase.

This term the newsletter faced several challenges, mostly in the manpower department. Turnaround times were not always as fast as they should be and replies to emails and submissions were also delayed at times. The newsletter was also not always published on schedule, again mostly related to challenges in human resources, although at times the lack of content also contributed to these delays. We are looking at several ways to address these challenges, including by increasing human resources. Because the newsletter is member-driven, we are reliant on our members to submit content for inclusion in the newsletter, and I urge any existing and new members that have interesting behavioural observations, unpublished range extensions or other suitable content to submit these to *African Herp News*.

This term also saw some changes being implemented in *African Herp News*. The author instructions were updated and expanded (and are, as always, available at the end of this edition of *African Herp News*). We have also removed the need for geographic distribution notes to be based on a specimen that has been deposited in a recognised national museum, although we require that any range extensions, if not based on a museum specimen, be based on photographs of the individual, showing the diagnostic features, and that these photographs be uploaded to a recognised citizen science platform (preferably iNaturalist or the Biodiversity and Development Institute Virtual Museums), and a link to the record included in the submission. We also require that ethical and research permit numbers are cited for any activities that would require these prior permissions.

Lastly, I would like to extend a huge thanks to everyone who reviewed submissions during this term, as well as to all those authors who submitted articles and notes. Without this sustained effort from the community, this newsletter would not be possible. I would also like to thank Bryan Little for doing the layout of the newsletter, and to Warren Schmidt who proofread most of the editions prior to them being distributed.

Darren Pietersen
Newsletter Editor,
Herpetological Association of Africa

AWARDS PORTFOLIO REPORT

2022–2023

This report covers the period January 2022 through December 2023 inclusive.

Research grants

The 2022 Research Grants call was advertised via the HAA website and on the association's social media platforms in February 2022. In total, we received seven applications for the Student Research Grant, all of which were assessed by five independent reviewers. Kathleen Webster was identified as the recipient for her proposal entitled "Assessing the Vulnerability of Island Endemic Herpetofauna to Environmental Change in the Comoros Archipelago". The final report for the project has been archived. No professional grant applications were received so no award was presented. This prompted discussion regarding the awards during the biennial meeting at the Hoedspruit conference (see minutes of that meeting).

The 2023 Student Research Grant and the 2023 Professional Research Grant were both advertised on the HAA website and the association's social media platforms in March 2023. We received four Student Research Grant applications. Four independent assessors were asked to review and rate the four applications. Examination of the assessor scores identified Gerhard Wiese as the recipient of the ZAR15 000 grant for his proposal entitled "Temperature effects on the partitioning of cutaneous and respiratory water loss rates in five southern Africa lizards". Only one Professional Research Grant application was received. The four reviewers were asked to review the application to confirm that it was appropriate. The application was assessed as a worthy recipient of the Professional Research Grant and the ZAR15 000 award was duly awarded to Ed Netherlands for his proposal entitled "Unique and impressive cryptic diversity within the genus *Breviceps* (Rain Frogs)". Recipients were informed via email. The awards were paid across to the recipient's institutions, and feedback from those projects will be archived upon receipt.

Conference-associated awards

Two awards are traditionally offered at conferences. No nominations for the Exceptional Contribution to African Herpetology Award were made prior to the Hoedspruit conference and the award was thus not presented. The Don Broadley award for best student paper in *African Journal of Herpetology* was also not presented at the Hoedspruit conference as I failed to advertise the call. Please accept my apologies.

Other initiatives

In November 2023, the association advertised six three-year membership awards. These awards are an effort to increase HAA membership in poorly represented regions of Africa. Recipients will receive full member rights for a period of three years.

Bryan Maritz

Awards, Herpetological Association of Africa

STUDENT SUPPORT REPORT

2022–2023

This report details the initiatives and activities in support of the development and recognition of students and early-career researchers within the HAA. Through 2022–2023, in my role in the student support portfolio, I have strived to provide a platform for students and early-career researchers to integrate themselves and share their research with the African herpetological community at large.

During May 2022, the HAA hosted its first ever virtual mini-symposium. This online conference aimed to bridge the gap between the 14th HAA conference hosted in September 2019 and the then postponed 15th HAA conference originally scheduled for September 2021 but postponed to January 2023 due to the COVID-19 pandemic. Students were strongly encouraged to participate, and of the 50 speakers at the virtual mini-symposium, 26 (52%) of the presenters were registered students, and a further 5 (10%) were postdoctoral researchers. The majority of these members were registered at tertiary institutions in South Africa but students from Cameroon, Côte d'Ivoire and Kenya, as well as from overseas, also participated. Awards were bestowed to the best student presentation and the best student poster in addition to similar awards for members not registered as students (professionals or enthusiasts), with the winners each receiving HAA memberships (Table 1).

In January 2023, the HAA hosted its 15th Conference in Hoedspruit, South Africa. Five students were awarded support grants and sponsorships to facilitate their attendance (Table 1). In addition, students were also awarded prizes for the best student presentation and best poster (Table 1).

Throughout 2023, the HAA has sought to provide students with an opportunity to introduce themselves to the broader HAA community on social media through a “student of the month” feature on HAA social media platforms. Students were encouraged to participate by sending in a short description of themselves and their research and providing a few photographs. This initiative was met with modest success and will hopefully continue moving forward. Students were also informed of advertisements, calls for grants and bursaries, and other relevant opportunities via the newsletter, social media pages, and mailing list.

Jody Barends

Student Support, Herpetological Association of Africa

ANGELO JOHN LEONIS LAMBIRIS

I joined the *Herpetological Association of Rhodesia* in 1963, and was a founder member of the *Herpetological Association of Africa*. I served as the Chairman of the *Herpetological Association of Africa* between 1998 and 1999, and was the Newsletter Editor from 1998–1999 and again from 2004–2009.

I began serious field studies in 1960. I started a systematic collection of amphibians and reptiles in 1962 which, when donated to the Durban Natural Science Museum in 2019, comprised nearly 5 000 specimens, representing some 500 species, mostly from central and southern Africa (Fig. 1). This collection was used extensively when teaching herpetology courses at the University of KwaZulu-Natal. My principal interests are amphibian and reptile taxonomy, biology, ecology, and behaviour.

Since 1965 I have also been active in reptile medicine and surgery, and over the years I developed a *pro bono* clinic initially for the treatment of ill and injured wild reptiles in collaboration with wildlife rehabilitation centres, but which eventually also became involved with captive animals (Fig. 2). I was elected a Fellow of the Royal Society of Biology, nominated by Professor Fredric Frye in recognition of my contributions to, and development of, techniques in the surgical and medical care of wild and captive reptiles.

Figure 1. Part of the herpetological collection that was donated to the Durban Natural Science Museum in 2019.

Figure 2. Emergency surgery in the clinic – May 2009.

A PERSONAL TRIBUTE TO THE LATE WULF HAACKE (1936–2021)

L.M. Mahlangu

Wulf and I met in 1990 when I started working at the Transvaal Museum (now the Ditsong Museum of Natural History) in the Herpetology Department. He was someone that black people in particular respected and liked because he never walked past without saying hello, and when people went to ask for financial help Wulf was the main person they would go to. People would ask me “where is Mr Haacke? If I do not see him today, I won't be able to get home!”. Even if they dodged him after getting paid, they still went back to him the next time and he would still help them. That’s the type of person he was. One day he said to me “Lauretta, what must I do because these people sometimes dodge me after getting paid”. I suggested he tell them that he has noticed that when they need to borrow transport money they know exactly where to find him but when they have to pay him back, they can’t seem to find him anywhere! He took my advice and there was at least some improvement.

When Wulf saw someone outside of his department make a mistake, he never reported them to management. Instead, he called them to his office and talked to them. I had coworkers in the museum tell me that they self-corrected because of Wulf. He was this kind of a person that would listen patiently. When you did good work, he would tell you. And likewise, if your work was subpar, he would also tell you, and encourage you to do better.

I learnt so much from him. I sometimes felt that he understood me better than I understood myself. I would ask him, for example, something about how to differentiate two species. Wulf would then sit down with me and spend hours explaining how to spot the difference in simple terms, so that I would not forget. Something I struggled with was the difference between Bibron's Giant Gecko (*Chondrodactylus bibronii*) and Turner's Giant Gecko (*C. turneri*) or Short-snouted Grass Snake (*Psammophis brevirostris*) and Olive Grass Snake (*P. mossambicus*). One day in frustration I said to him that these species do not want me to know them and the feeling is mutual! He laughed and whispered “young lady”, as he used to call me, “you have to be patient”. He never once reprimanded me in situations where he had previously explained something. Instead, he would start all over again and I always respected him for that.

After he retired, he used to visit the museum from time to time. On one of those visits, he got very emotional and broke into tears in my office. It highlighted to me just how human he was. He cared deeply.

Wulf contributed so much to the herpetology collection at the museum over many decades. He was particularly interested in Namibian reptiles as he was born there and his parents owned a farm there. If I remember correctly, the day South Africa became a republic was the day that he started working for the museum.

Wulf had a very good memory. He would tell me the history of every specimen he collected including what happened that day, when it was collected, people he was with and the weather. Likewise, for other specimens he could tell me who collected it and where, before even looking at the label. I would joke and say to him there is an elephant out there suffering because he took its brain.

One day I went to the live animal display and found that the *Chondrodactylus bibronii* had laid two eggs. Unfortunately one egg was stuck to the display and broke when I tried to pick it up. I thought to myself that Wulf won't know. I said to him “Uh... I found an egg in the bibronii cage”. His response was to go and look for the second egg. I insisted that I only found one. He said it was impossible and told me that they always lay two eggs. I realised that my plan had failed and said to him “you know what, maybe this time she decided to lay one egg and save the other one for the next round”. I never told him what happened.

Wulf had a great sense of humour. One day someone called when Wulf was not in his office, so I answered the phone. I could not hear the caller well so I wrote something that I could not understand myself, on a piece of paper. When he asked me who rang, I told him that I did not know. On the note I wrote "done hame something”. He asked me what it meant, to which I replied that I wrote what the person had said. He kept that piece of paper. Seven weeks later he came back to me and said “young lady, do you know who that person is who called some time ago and we could not figure out the message?”. I said “no”. He said “it was my daughter Ingrid!”. I said “what?!”. He said they were sitting at home and it came up. That is when she told him that she had called and said “tell my dad that he will find me at home”. I was so embarrassed that I could not understand such a simple message and said to him it was his fault because he did not teach his daughter how to pronounce “home”! It was a joke that we laughed about for a very long time.

A fun fact about Wulf is that the Bushveld Lizard (*Heliobolus lugubris*) was one of his favourite lizards for some reason. When I worked in the collection room and I saw the jars of *H. lugubris* I would always think of him.

Above all, he loved his kids. They always came first.

All in all, we had a very good working relationship. We had our little differences, but that is true of any working environment. I very much appreciated working for Wulf, and I miss him.

Lauretta Mahlangu
Department of Herpetology, Ditsong Museum of Natural History

COITAL BITING IN A CAPTIVE MONTANE EGG-EATER (*DASYPELTIS ATRA*)

A. TIUTENKO

INTRODUCTION

Coital biting, a behaviour where the male grabs and holds the female with his mouth before or during copulation, is seldom observed in snakes. It has been reported mainly in North American and some Eurasian colubrids, including smooth snakes (*Coronella*), indigo snakes (*Drymarchon*), rat snakes (*Elaphe*), rainbow snakes (*Farancia*), kingsnakes (*Lampropeltis*), corn snakes (*Pantherophis*), gopher snakes (*Pituophis*), ground snakes (*Sonora*), and ladder snakes (*Zamenis)(*Tinkle 1951; Gillingham 1974; Lotze 1975; Lewke 1979; Secor 1987; Langford and Borden 2004; Aßmann et al. 2016; Johansen et al. 2022). A comparison of coital bite occurrences with phylogeny of snakes led Senter et al. (2014) to conclude that this behavioural phenomenon is likely to be ancestral for the group they called "Eurasian ratsnake clade *Zamenis* + (*Elaphe* + (*Coronella* + Lampropeltini))" in the family Colubridae. However, the authors of this first-ever study of the evolutionary history of courtship in snakes conceded that the inference that such behaviour is absent in a clade must be treated with caution because in nature such behaviours may not always be observed and may thus remain unrecorded. Also, important information about the biology and behaviour of captive reptiles often remains unknown to the scientific community because hobbyists and commercial breeders often lack contact with academic herpetologists and do not publish their observations. Even when such observations are mentioned in online publications or herpetoculture magazines, they are often overlooked by professional herpetologists.

That male egg-eaters (*Dasypeltis*) perform a coital bite was briefly mentioned at least three times in captive care reports by German reptile breeders (Schillert 2004; Scheurer 2007; Göthel 2015), but this behaviour has apparently not been noted or investigated by scientists. Indeed, the idea of an egg-eater biting anything is quite unexpected as their teeth are extremely reduced in size (Gans 1959). Even though I am a herpetologist with a keen interest in *Dasypeltis*, I was not aware of this phenomenon until I made an observation that surprised not only me but also all colleagues whom I told.

OBSERVATIONS AND DISCUSSION

I keep five species of *Dasypeltis* from six localities in western and eastern Africa. Among them are several Montane Egg-eaters (*Dasypeltis atra*) from the high elevation population on Mount Kenya. An adult pair of the black phase ('2M' of Gans 1959), both about five years old, regularly b-

-reed. During the two years that I have had her, the female (ca. 1 100 mm in total length) has laid up to four clutches of 7–15 eggs a year, with intervals of 6–9 weeks between clutches. She did the same during the preceding 18 months while being housed by the previous owner, and this appears to be common behaviour for this species in captivity (see for example Göthel 2015). In the rainy season (March–October) the female is receptive after every ecdysis and, if the male is present, they mate. Once, when the male was not housed in the same enclosure, this female laid two clutches of fertilised eggs despite not mating again, and this behaviour has also been reported by other captive breeders in Germany. After that she produced two infertile clutches when the male was still not housed in the same enclosure as her. If the male is present and the female is in good physical condition, the couple may mate about every two months, usually soon after ecdysis of the female. On one occasion, the male was observed copulating with the female immediately after egg deposition (literally a few seconds after the female had laid the last egg), and in the interest of the females' health the male was subsequently removed from the enclosure prior to oviposition. With a total length of ca. 800 mm, the male is much smaller than the female, even though he exceeds the total length (709 mm) of the largest wild specimen of this species from north-east Africa (including Kenya) as reported by Bates and Broadley (2018). The male seems to be constantly seeking an opportunity for coitus, but it is the female who regulates the frequ-ency of mating events. The male always stays near the female, following her everywhere, and attempts to squeeze into her hiding place, or to coil together with her when she is outside. When the male was transferred to terraria with other females, he showed the same behaviour even with females of different species. When a female is not ready for mating, she may move away when the male approaches her. Sometimes when a male attempts to enter a refuge occupied by an unreceptive female, she makes sudden pushing movements with her flanks toward him. More usually, however, she accepts the proximity of the male without any reaction.

Egg-eating snakes exhibit all three stages of the courtship process as described for colubrid snakes (Davis 1936; Gillingham 1974): (1) chasing, (2) tactile and mounting, and (3) intromission. However, such intensive courtship is not as prolonged in my captive egg-eating snakes as was reported for species of other genera of Colubridae, where it continued for several days. The effects of captivity should not be excluded in this case (e.g., due to limited space, absence of competitors, or constant availability of a mating partner), as captive snake behaviour may differ from behaviour in the wild, when some behavioural patterns may become simplified or obsolete. I have observed only brief courtship acts, when male egg-eating snakes performed jerky movements with their body touching the female's body. When the male manages to get his tail and neck over the body of the fe-

-male, he performs wavy movements similar to the behaviour described for other colubrid genera and other snake families (see for example Franke 1881; Gillingham 1974; Bol 2020). When the female allows this activity by the male, copulation follows within the next few minutes. If the female rejects the male's advances, the male simply remains near her and waits for another opportunity that may come within the next few days or weeks.

Although I observed such short courtship acts and the subsequent copulation of my *D. atra* pair many times, I had never seen the male biting the female. Once, to give the female some respite, I removed the male for a few weeks from the terrarium that he shared with the female. After this period, when I was releasing the male back into his usual terrarium, he headed straight to the female who was resting in her usual spot and bit her. This action occurred so quickly that I was initially unsure of what had happened, until I noticed that the male was moving his jaws to realign them (as snakes usually do after a bite), and the female was fleeing. A few seconds later, the male bit the female again as she was crawling away from him on some twigs. This time the female stopped moving and the male kept holding her dorsum in his mouth for about 10 minutes (Fig. 1). When intromission was achieved, he released her from his bite-hold and the couple remained motionless and attached (by the inserted hemipenis)

Figure 1. Coital bite of a male Montane Egg-eater (*Dasypeltis atra*) on a female in captivity. Photo: Arthur Tiutenko.

for the next >15 hours. Such long coitus appears to be usual for this genus (the mating couple may even move in this state if disturbed). I have observed such prolonged coitus in captive egg-eating snakes many times myself, and it has also been reported for other species (Schillert 2004; Göthel 2015). However, Kulmus (1984) reported a much shorter coitus duration of just 2.5 hours in the Common Egg-eater (*D. scabra*). Also, he did not observe a coital bite in his snakes that were received from South Africa (Kulmus 1984). Scheurer (2007) observed recurring copulations over a period of several days in his captive *D. scabra*.

In snake species where females and males are of similar size, observers usually speak about "neck-biting" (see references in Senter et al. 2014). This is not quite true for *Dasypeltis* as males are typically much smaller than females (Bates and Broadley 2018). For this reason, the male grasps the female not on her neck but much further back, somewhere on the anterior third or ev-

-en midway down the body, in order to be able to align his cloaca with hers. The main purpose of this act could be to restrain the female from fleeing and gain time for insertion of a hemipenis into her cloaca. As soon as the female has stopped moving away and intromission has been achieved, the male releases his grip. At this moment, the male has to repeatedly move his jaws to detach them from the female's body. The teeth are short and do not puncture the skin, nor do they scratch the scales. Still, they are effective for attaching the male's jaws to the female's scales and not only for holding slippery eggshells, as is usually supposed.

There may be an obvious reason why coital biting is only known in species with small or rudimentary teeth while this behaviour has never been observed in taxa with large teeth. Even in the nearest relatives of *Dasypeltis*, the cat-eyed snakes (*Boiga*), where the dentition is opysthoglyphous, coital biting seems to be absent (Greene and Mason 2000). It may be that the coital bite occurs only when it causes little or no injury, and is absent in species that have a full set of large teeth or even venom fangs that may cause severe injury or death. In some of the latter species, males are known to occasionally bite each other during combat but apparently never bite mating partners (Senter et al. 2014, and references therein). In the Colubridae phylogeny (e.g., Pyron et al. 2010, 2013) the tribe Boigini (that includes *Dasypeltis*) is rather distantly related to North American and Eurasian clades where coital biting has been long-known and is well documented. Moreover, it was recently also observed in the North American snake genus *Thamnophis* (family Natricidae), whose members also have relatively short teeth (Bol 2020). It is now apparent that this behaviour occurs in many more snake genera and families than Senter et al. (2014) initially thought. It may not have emerged separately in snakes, as it is of the same evolutionary age as in lizards where this behaviour is usual. Coital biting may have subsequently disappeared in many groups of snakes when they developed dental adaptations for capturing large hairy or feathered prey, but remained as a relic in some short-toothed genera.

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NOTES ON THE PHINDA RAIN FROG (*BREVICEPS CARRUTHERSI*) FROM A HABITAT-SCALE PITFALL AND FUNNEL TRAP SURVEY IN THE MUNYWANA CONSERVANCY, KWAZULU-NATAL PROVINCE, SOUTH AFRICA

P.R. JORDAAN & P.U. ELS

Continuous taxonomic research supports effective biodiversity conservation (McNeely 2002; Branch and Bauer 2014), and this includes the description of previously unknown or reclassified species. However, acknowledging the existence of a species is simply the first step towards its, and occasionally its habitat's, conservation, which relies on additional biological and ecological data. Adequate information on the distribution, biology, abundance, and population dynamics of the species are required to inform conservation measures and assessments (Minter et al. 2004).

Little information exists on the recently described Phinda Rain Frog (*Breviceps carruthersi;* Fig. 1), with the species provisionally assigned a conservation status of Data Deficient by du Preez and Carruthers (2017). To start addressing this shortcoming, we present information on this species obtained during a habitat-scale pitfall and funnel trap (PFT) survey conducted across the Munywana Conservancy, including Phinda Private Game Reserve, KwaZulu-Natal province, South Africa, during December 2017 and January 2018.

Figure 1. Phinda Rain Frog (*Breviceps carruthersi*) captured in the Munywana Conservancy, KwaZulu-Natal province, South Africa . Photo: PR Jordaan.

The Munywana PFT survey covered five vegetation types as defined by the ecological management authority of the protected area: Bush Clump Thicket, Palm Veld, Sand Forest, Sandveld Woodland, and Mixed Zululand Lowveld Savanna (MZLS). Three PFT arrays, each incorporating four pitfall traps, nine double-sided funnel traps, and three terminal funnel traps along 30 m of drift fences (Fig. 2), were installed within each of the five vegetation types.

All PFT arrays were active for a period of 25 nights from 12 December 2017 until 6 January 2018.

Figure 2. Pitfall and funnel trap array installed in Mixed Zululand Lowveld Savanna vegetation at the onset of the survey on the Munywana Conservancy, KwaZulu-Natal province, South Africa. Photo: PR Jordaan.

A subset of captured specimens were measured and weighed before being released at the capture site. The remaining individuals were not measured or weighed due to animal welfare considerations – specifically, animals that were trapped during higher temperatures were released without measuring or weighing them.

Of the five vegetation types, *B. carruthersi* was only captured at the three PFT arrays installed in MZLS. At the start of the survey, the herbaceous layer within MZLS was sparse due to preceding winter fires (Fig. 2), however with high rainfall during December continuing into January, the grass layer regenerated - reaching an estimated average height of 0.4 m at the end of the sampling period. Despite the close proximity of Bush Clump Thicket PFT arrays to locations where some of the paratype *B. carruthersi* were collected by Minter et al. (2017), no specimens were captured in this vegetation type, however some were heard calling close by. In total, 19 *B. carruthersi* were captured during the survey, of which three voucher specimens are accessioned in the Port Elizabeth Museum Herpetological Collection (PEM A15321, PEM A15328 and PEM A15332).

The representation of *B. carruthersi* as a proportion of all amphibian captures across the three MZLS PFT arrays varied, ranging between 33.3% and 61.9% (Table 1). Across the survey, double-sided funnel traps captured 16 individuals, followed by pitfall traps which caught two *B. carruthersi*. Only a

single individual was captured in a terminal funnel trap during the survey. Rainfall preceded most *B. carruthersi* captures during the PFT survey.

Fifteen specimens were measured and weighed, ranging in size between 29–50 mm SVL, with a mean of 38.7 mm (SD ± 8.98 mm). The mass of specimens ranged between 4.4–19.6 g with a mean of 10.6 g (SD ± 7.94; Fig. 3). Large choruses of advertisement calls were heard both at night, as described in Minter et al. (2017), as well as during cloudy or rainy conditions in the daytime and occasionally during sunny weather following rainstorms. Daytime vocalizations appeared to originate from underground.

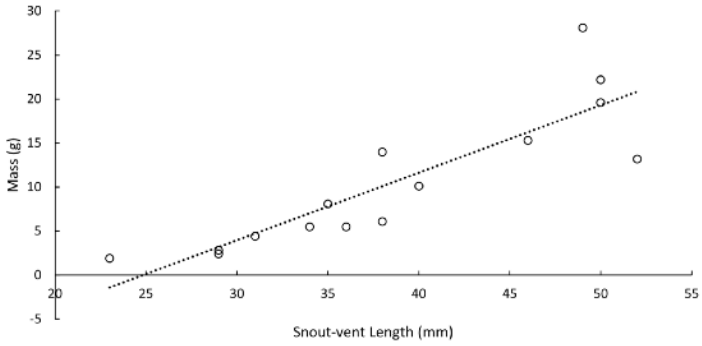

Figure 3. Snout-vent length (SVL) and mass of 15 Phinda Rain Frogs (*Breviceps carruthersi*) captured during the 2017/2018 pitfall and funnel trap survey on the Munywana Conservancy, KwaZulu-Natal province, South Africa.

The 2017/2018 PFT survey of the Munywana Conservancy is the first study to quantitatively document *B. carruthersi* populations since the description of the species. The capture rate across the three sites followed a constant linear trend (Fig. 4) likely due to the frequent rainstorms during the sampling period. Whilst decreases in vegetation cover has been reported to increase captures for other rain frog (*Breviceps*) species (Jordaan et al. 2023), no divergence from the linear trend in capture rate was evident between the start of the survey when the grass layer was largely absent and the end of the sampling period when the herbaceous component regenerated.

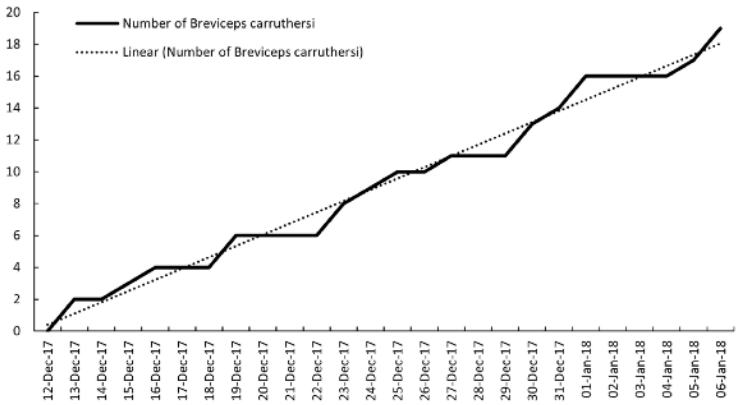

Figure 4. Accumulation of Phinda Rain Frog (*Breviceps carruthersi*) captures during the pitfall and funnel trap survey on Munywana Conservancy, KwaZulu-Natal province, South Africa.

From the results of this PFT survey it appears as though *B. carruthersi* is abundant in the south of the Munywana Conservancy, as suggested by Minter et al. (2017). Whilst the currently recognized distribution of the species is localized around the Munywana Conservancy and the town of Hluhluwe, based on the results of the PFT survey as well as the extent of advertisement call choruses encountered during fieldwork, this species is abundant within the MZLS component of the protected area. We unfortunately still know too little about this species' ecological requirements to speculate why it is apparently more abundant in the MZLS.

Table 1. Number of Phinda Rain Frogs (*Breviceps carruthersi*) captured per Mixed Zululand Lowveld Savanna pitfall and funnel trap array, compared to the total number of amphibians captured at each site.

Site	MZLS 1	MZLS2	MZLS3
Coordinates (WGS 84 datum)	27° 53' 01" S 32° 14' 34" E	27° 53' 14" S 32° 14' 47" E	27° 53' 26" S 32° 13' 37" E
Number of *B. carruthersi* captured per array	4	2	13
Total number of amphibians captured per array	9	6	21
Proportional representation of *B. carruthersi*	44.4%	33.3%	61.9%

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VARANIDAE

Varanus albigularis albigularis

(Daudin, 1802)

Rock Monitor

PREDATION

E. GILBERT & T. PING

On 28 November 2022 at approximately 14h00, we were alerted by a colleague to a deceased juvenile Rock Monitor (*Varanus albigularis albigularis*) while on a herpetological expedition near Pafuri, Limpopo province, South Africa (22° 25' 40" S, 31° 02' 07" E, QDGC 2231AB). Based on the good body condition with no signs of external decomposition except sunken eyes, we assume the animal to be recently deceased. The lizard looked generally in good health, with no external wounds or damage, except some stuck slough on its tail. The lizard had a snout-vent length of approximately 220 mm, and a total length of approximately 400 mm. Based on its size it is believed to be a first-year individual. Protruding approximately 15 mm from the mouth was the posterior of a scorpion, which was intact, including its telson. The scorpion was identified as a Transvaal Thicktail Scorpion (*Parabuthus transvaalicus*) based on the size, colour, and granulation of the last tail segment and the telson.

The venom of *P. transvaalicus* is medically significant, with a subcutaneous LD50 of 4.25 mg/kg in mice (Zlotkin et al. 1976), and a reported large venom yield (Newlands and Martindale 1980). Human fatalities have been reported following stings from this species, and its venom is known to have a severe neuromuscular effect (Bergman 1997). The high toxicity of *P. transvaalicus* venom and the predation attempt by the *V. a. albigularis* implies that envenomation may have caused the mortality. We note that this was not directly observed but could be a reasonable interpretation of this interaction. Another potential cause of mortality attempting to predate this scorpion could have involved choking, despite prior records of scorpions in Varanid diets. Varanids are known to feed on weakly venomous scorpion species in Australia (Pianka 1994), and *V. a. albigularis* is an opportunistic generalist predator with invertebrates making up a significant part of their diet (Dalhuijsen et al. 2014), including a record of the weakly venomous Drakensberg Creeping scorpion (*Opisthacanthus validus*; Maritz and Maritz 2020). Despite this, we cannot exclude the possibility of choking, which has been

inferred from a previous observation of a Perentie (*Varanus giganteus*) partially ingesting an Echidna (*Tachyglossus aculeatus*; Kirschner et al. 1996), a larger, but also morphologically more challenging, prey item.

Figure 1. Forebody of the deceased juvenile Rock Monitor (*Varanus albigularis albigularis*) with the posterior of a Transvaal Thick-tailed Scorpion (*Parabuthus transvaalicus*) protruding from its mouth.

Figure 2. The deceased juvenile Rock Monitor (*Varanus albigularis albigularis*) with the posterior of a Transvaal Thick-tailed Scorpion (*P. transvaalicus*) protruding from its mouth.

Inceoglu et al. (2001) characterized the venom of *P. transvaalicus* and found it to contain toxins specialised towards mammals, indicating that the venom (and its "pre-venom"; Inceoglu et al. 2003) are important defence mechanisms against predators. Interestingly, they found that *P. transvaalicus* venom does not contain components targeting reptile ion channels although they note that reptilian ion channels are not fully characterised. When Inceoglu et al. (2001) tested the crude venom against three insect species, mice, and anoles, they found that it did not show a noticeable effect in the anole except for temporary lethargy, even at high doses (100 µg venom per 10 g lizard, via subcutaneous injection). This evidence is in stark contrast to our observation, which suggests that lizards, and specifically *V. a. albigularis*, are susceptible to *P. transvaalicus* venom. There are cases involving reptile vulnerability to scorpion venom in different species, such as Yellow-tailed Scorpion (*Leiurus quinquestriatus*) and Fan-toed Gecko (*Ptyodactylus guttatus*; Zlotkin et al. 2003), demonstrating that this may be a species-dependent effect. Inflammation and swelling resulting in the blocking of the lizard's airways while it was trying to swallow the scorpion seems unlikely, given no documentation of these types of symptoms from this scorpion species (Müller et al. 2012; Leeming 2019). Other reports demonstrate that Varanids are susceptible to some scorpions with neurotoxic venoms, even during predation, albeit with different species in a non-natural setting (Freeman et al. 2022). This latter case demonstrates that severe envenomation of a Varanid (Gray's Monitor [*Varanus olivaceus*]) by a Buthid scorpion (Arizona Bark Scorpion [*Centruroides sculpturatus*]) during predation

is indeed possible, although the circumstances are not comparable to our observation.

We consider this an important observation not just for the novel predation record, but potential implications for toxicological study of venom susceptibility and resistance, highlighting the significant role natural history observations of species interactions may play in understanding “real world” ecological and evolutionary processes.

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LAMPROPHIIDAE

Lycodonomorphus rufulus

(Lichtenstein, 1823)

Brown Water Snake

MAXIMUM SIZE

T. J. PING & J. GODWIN

The Brown Water Snake (*Lycodonomorphus rufulus*) is a small, common and widely distributed snake across South Africa, with the exclusion of the arid western regions (FitzSimons 1962; Broadley 1990; Branch 1998; Marais 2004). It is a nocturnal, harmless snake which is often associated with slow-flowing streams, dams and damp localities. Adults typically average 500–600 mm total length (FitzSimons 1962; Broadley 1990; Branch 1998; Marais 2004).

On 12 November 2021 at approximately 09h00, the second author was called to a location in Victoria Bay Heights, Western Cape province, South Africa (33° 59' 58"S, 22° 31' 26"E, QDGC 3322DC; 166 m a.s.l.) to remove and relocate an unknown snake from a residence. Upon arrival, J. Godwin identified the snake as a Brown Water Snake based on the uniformly brown dorsum, pale supra- and infralabials, and pale-yellow underside (Ping 2023). A standard metal measuring tape was used to measure the snake by gently straightening the snake against the tape. The total length of the snake was measured twice, yielding an average total length of 1 080 mm (Fig. 1).

Figure 1. Brown Water Snake (*Lycodonomorphus rufulus*) captured in Victoria Bay Heights being measured.

The snout-vent length and tail length were not measured separately. The snake had a truncated tail, a wound which had since healed, so a true total length could not be determined as the additional tail section was missing.

The largest previously recorded specimen had a total length of 970 mm, collected by C. Prinsloo on 18 December 2019 in Benoni (Prinsloo and Raw 2020). This recorded size of 1 080 mm increases the known maximum size of this species by approximately 110 mm, an increase of 11.3%.

Figure 2. Captured Brown Water Snake (*Lycodonomorphus rufulus*) in-hand, showing its true size.

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CHAMAELEONIDAE

Bradypodion caeruleogula

Raw & Brothers, 2008

uMlalazi Dwarf Chameleon

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The uMlalazi Dwarf Chameleon (*Bradypodion caeruleogula*) is a forest specialist with a restricted range in KwaZulu-Natal province, South Africa, and has been recorded from only three isolated forest patches, Entumeni (7.0 km^2), Dlinza (8.3 km^2, including the village of Dlinza) and Ngoya (29.2 km^2) forests for a combined total area of 44.5 km^2 (Tolley 2022a; Fig. 1). In addition, the Area of Occupancy (AOO: the total number of 2x2 km grid cells that the species occupies) for this species is estimated at 108 km^2 with an Extent of Occurrence (EOO: the total area bounding the three forest patches) of 230 km^2 (Tolley 2022a). The three forest patches are threatened by human activities resulting in habitat loss and degradation for *B. caeruleogula*. Given the ongoing habitat loss and degradation, and both the small AOO and EOO (IUCN Standards and Petitions Committee 2022) the species has an Endangered extinction risk according to the IUCN (Tolley 2022a).

On 12 February 2023, an unidentified female *Bradypodion* was observed in the riparian sedges between the riparian Kraal Hill Forest (within 20 m of scattered trees on the fringe) and the dune uMlalazi Estuary Forest (~210 m) north of Mtunzini, KwaZulu-Natal province, South Africa (Fig. 1) and the record was uploaded to iNaturalist (https://www.inaturalist.org/observations/161759475). The closest known observations of congeners to this location are *B. caeruleogula* (recorded approx. 11 km to the north-west) and Setaro's Dwarf Chameleon (*B. setaroi*) (recorded approx. 24 km to the north-east). However, the Mtunzini individual could not initially be positively identified given no clear morphological features that matched either species (Fig. 2). For example, *B. caeruleogula* typically has pigmented interstitial skin on the flanks and a light blue colouration on the interstitial skin of the gular, whereas this individual has neither of these features. In contrast, *B. setaroi* typically has orange tubercles along the flanks and in males, some pink-orange patches along the flanks (Tolley and Burger 2007). However, the Mtunzini female lacked these features.

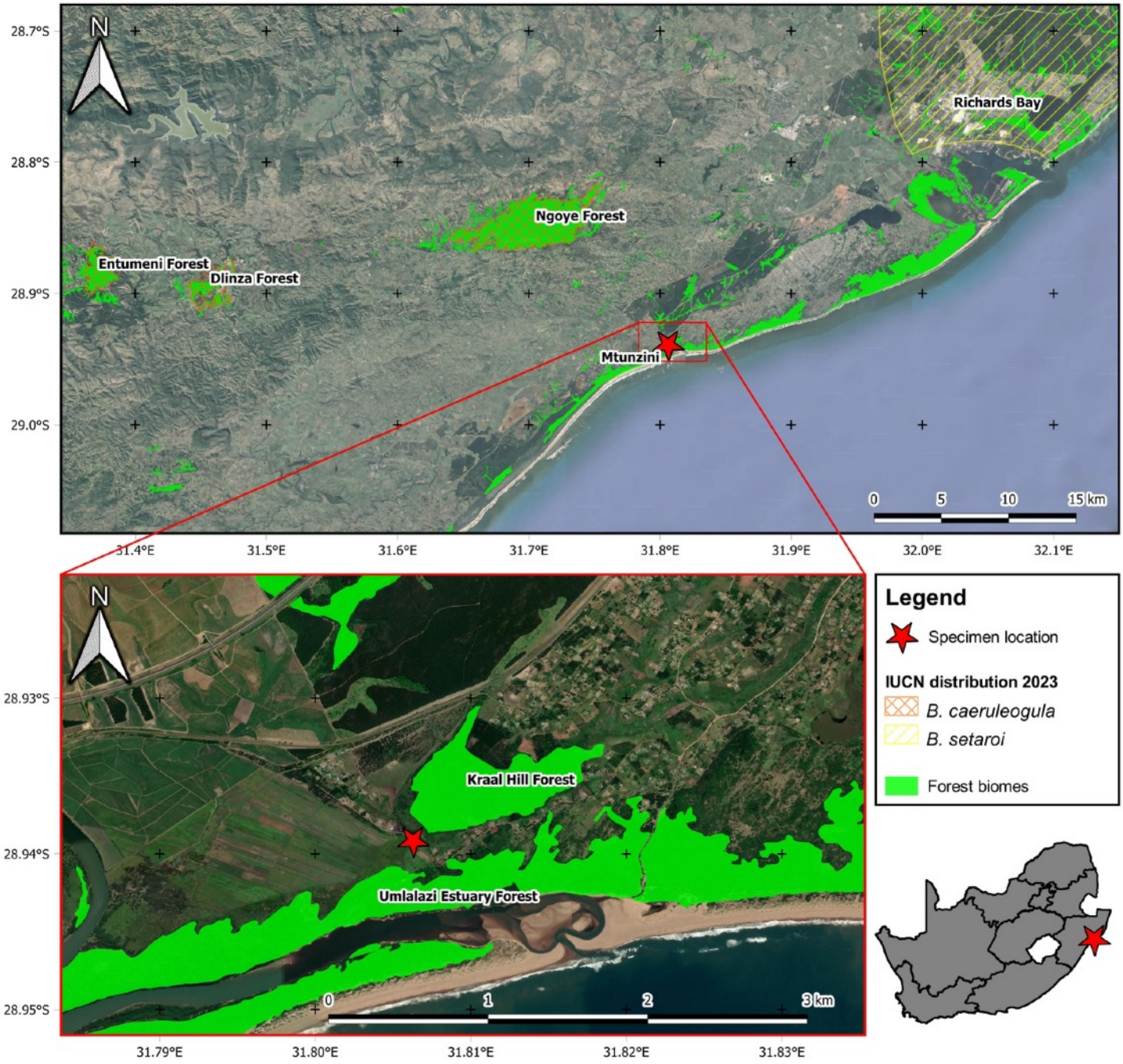

Figure 1. Locations of forest patches in KwaZulu-Natal province, South Africa, where the uMlalazi Dwarf Chameleon (*Bradypodion caeruleogula*) has been recorded and the new record from near Mtunzini (red star). The inferred distributions for Setaro's Dwarf Chameleon (*B. setaroi*) and *B. caeruleogula* are indicated with hatched polygons. Forest vegetation layer: KwaZulu-Natal Vegetation Map (2011). IUCN distribution polygons: Tolley (2022a,b)

Figure 2. Female uMlalazi Dwarf Chameleon (*Bradypodion caeruleogula*) observed adjacent to the Kraal Hill forest patch near Mtunzini (https://www.inaturalist.org/observations/161759475).

Given the lack of diagnostic morphological features and the absence of any other *Bradypodion* records from the vicinity, an identification was carried out using a phylogenetic analysis to place the individual at the species level within existing *Bradypodion* phylogenies (Tolley et al. 2004, 2008, 2022; Tilbury et al. 2006). The dataset consisted of two mitochondrial genes (ND2 and 16S) that have been used previously to assign species of *Bradypodion* (Tolley et al. 2004, 2008, 2022; Tilbury et al. 2006). Sequences from 39 individuals of all 20 *Bradypodion* species were either downloaded from GenBank or newly sequenced for this study, including the unidentified Mtunzini individual, plus two individuals from *Nadzikambia* as the outgroup taxa (Table 1). For all new data generated, DNA was extracted and sequenced using primers L4437/H5945 or vMet/vTrp for ND2 (Macey et al. 1997a,b; Cunningham and Cherry 2004) and 16Sa/16Sb for 16S (Palumbi 1996). The PCR reactions were carried out in volumes of 25 µl containing 2 µl of 25 ng/µl genomic DNA, 1 x PCR Reaction Buffer, 2.5 mM $MgCl_2$, 0.33 µM of each primer, 0.2 mM dNTP solution, and 0.02 U/µl of SuperTherm Taq polymerase (0.5 U/25 µl reaction). Thermal cycling included an initial denaturation for 4 min at 94 °C followed by: 35 cycles with denaturation for 30 s at 94 °C, annealing for 40 s at 52–55 °C, extension for 40 s at 72 °C, and final extension for 5 min at 72 °C. PCR products were run on a 1% agarose gel and visualized under an ultraviolet (UV) light to verify amplification. Sanger sequencing was carried out at either Macrogen (Amsterdam, Netherlands) or Inqaba Biotec (Pretoria, South Africa) using the forward primers for each gene fragment. The resulting sequences were aligned to existing *Bradypodion* sequences for both genes, using Geneious v11 (https://www.geneious.com).

A maximum likelihood (ML) analysis was run in RAxML (Stamatakis 2014) to generate a phylogenetic tree. The analysis was run for 1 000 bootstrap replicates, with the two genes partitioned and using the GTR+I+G model of evolution. The phylogenetic analysis placed this unidentified Mtunzini individual unambiguously as *Bradypodion caeruleogula* (Fig. 3). This suggests that a previously unknown population of this species occurs near or within Kraal Hill Forest and/or uMlalazi Estuary Forest, some 11 km south-east of the closest known locality, Ngoya Forest. With this new record, the species is now assumed to occur in four separate forest patches.

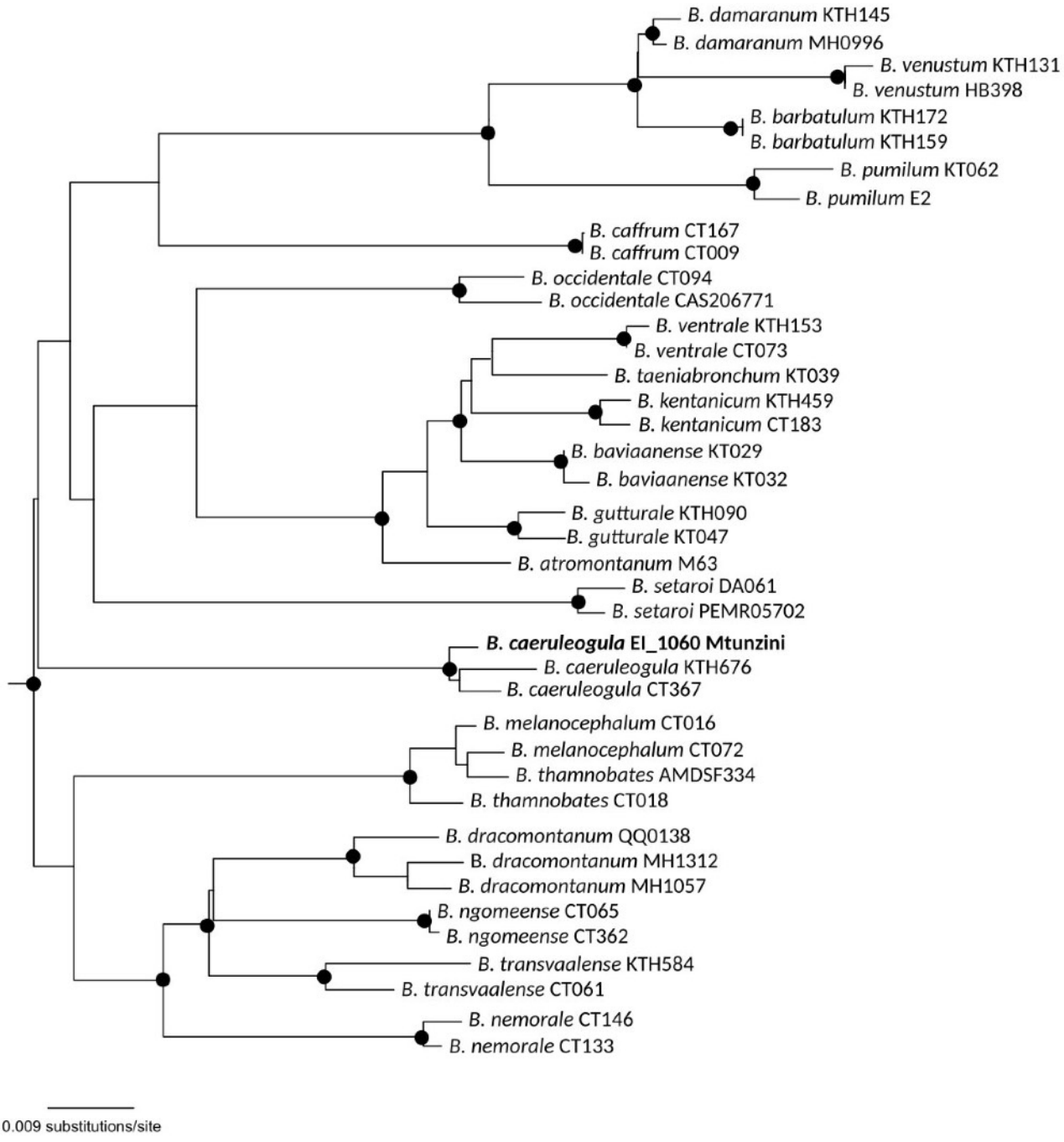

Figure 3. Maximum likelihood consensus tree for dwarf chameleons (*Bradypodion*) with the sample from Kraal Hill Forest near Mtunzini (EI_1060) shown in bold font. Supported nodes with ≥ 75% bootstrap support are indicated by black dots. The outgroup taxa (*Nadzikambia* spp.) are not shown.

Although the Kraal Hill and the uMlalazi Estuary forest patches were not searched for chameleons, the proximity of the chameleon to the Kraal Hill Forest (~20 m) strongly suggests that a population is present within this riparian forest. The uMlalazi Estuary Forest is a dune forest, a habitat usually associated with *B. setaroi* which forms a relatively contiguous coastal forest patch northwards to Richards Bay, where *B. setaroi* occurs. However, this new record of *B. caeruleogula* proximal to the dune forest warrants further investigation in this forest type.

The lack of obvious, present-day connectivity of the Kraal Hill Forest and/or uMlalazi Estuary Forest with other forests where *B. caeruleogula* is known to occur (Ngoya, Dlinza and Ntumeni) suggest that this species has a fragmented distribution, but historically this may not have been the case. Although there is severe habitat transformation between these patches (see Skowno et al. 2019), the forests are naturally fragmented, within a matrix of savanna and grassland (Mucina and Geldenhuys 2006). It is thought that climatic changes throughout the Pleistocene have driven episodic connectivity of forests throughout the region (Eeley et al. 1999), and this provides a mechanism whereby populations have become isolated in forest patches that were once connected. Similarly, Wahlberg's Bush Squeaker (*Arthroleptis wahlbergi*) occurs in numerous isolated forest patches in the same region and historical connectivity between nearby inland patches, such as Ngoya and Dlinza (scarp forest), with coastal patches has been demonstrated (Tolley et al. 2018). In particular, forest type does not appear to play a role as to whether there has been historical gene flow and connectivity for *A. wahlbergi*, but instead, geographic proximity between forest patches provides the best model for explaining relationships between populations of that species. Similarly, the Kraal Hill/uMlalazi population of *B. caeruleogula* is only 11 km from the Ngoya population (scarp forest), and it seems likely that these forests were once connected despite the present-day difference in the forest classification type. Furthermore, the new record of a single individual of *B. caeruleogula* on reeds just outside the forest could suggest that some connectivity between forest populations is maintained as individuals disperse across less suitable habitat.

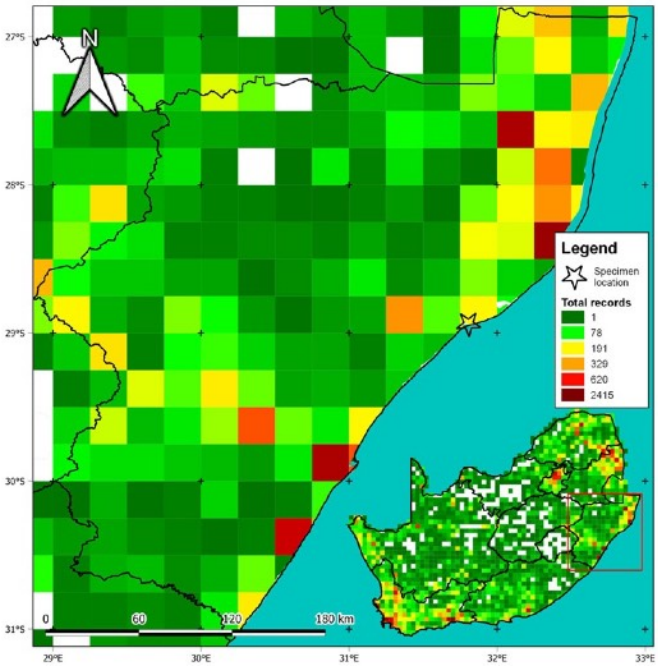

Figure 4. Density of records for reptiles from South Africa, focussing on the study area. Data source: Tolley et al. 2023

While this new record of *B. caeruleogula* bodes well for lowering the extinction risk of the species due to a larger AOO and EOO, the species would still be considered Endangered given that the increase in AOO and EOO do not reduce this risk sufficiently to trigger a lower IUCN threshold. The Kraal Hill Forest patch is approximately 0.49 km^2 in size, increasing the combined geographic distribution area to approximately 46 km^2 and adds a new 2x2 grid cell to the previous AOO estimation, increasing AOO from 108 to 112 km^2. Likewise, the EOO now increases from 230 to 325 km^2. Specifically, species with tangible threats such as habitat loss and population fragmentation are considered Endangered if their EOO is less than 5,000 km^2 and/or the AOO is less than 500 km^2 (IUCN Standards and Petitions Committee 2022). Therefore, the discovery of this new population does not add significantly to the size of the geographic distribution that would effect a change to the IUCN status. Nevertheless, future surveys targeting remaining sizeable forests in the region may uncover additional *B. caeruleogula* populations, especially given the low density of reptile records in the area (Fig. 4) suggesting there has been a lack survey effort in the overall region with most records being clumped around populated areas or nature reserves.

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COLUBRIDAE

Telescopus beetzii

(Barbour, 1922)

Beetz's Tiger Snake

C.S. STOBIE & M.F. BATES

Beetz's Tiger Snake (*Telescopus beetzii*) occurs from near Windhoek in central Namibia southwards into the Northern Cape province of South Africa, with a few peripheral records in the Western Cape and Free State provinces (Broadley 1990; Marais 2014a). On 14 March 2023 at 19h46 an adult specimen was found by Gerhard Burke near the gym in the town of Orania, Northern Cape province, South Africa (29° 49' 10" S, 24° 24' 53" E, QDGC 2924CD; 1 128 m a.s.l.) and a photograph posted on the Facebook group "Snakes of Southern Africa" (https://www.facebook.com/groups/snakesofsouthafrica/posts/10160361621221043; Fig. 1).

Figure 1. Beetz's Tiger Snake (*Telescopus beetzii*) from near the gym at Orania, Northern Cape province, South Africa. (Photo: Gerhard Burke)

Three days later, another record of this snake in Orania, 1 km from the previous sighting, was reported on iNaturalist (https://www.inaturalist.org/observations/151365383; 29° 49' 20" S, 24° 25' 15" E, QDGC 2924CD; 1 109 m a.s.l.) by Steon van Rensburg. Markings on the latter specimen (Fig. 2) match those of the first snake, which appears to be the same individual. The snake was easily identified (see description in Broadley 1990) by its pale sandy brown dorsal surface with a series of 47 dark spots/blotches from behind the head to the end of the tail (about 30 mostly large black oval-like saddles are on the back), and a black blotch on the temporal region (Fig. 1). This species often has a small black marking on top of the head, usually on the posterior part of the frontal scale, rather than a marking in the temporal area (Broadley 1990).

Figure 2. Second sighting of the first recorded Beetz's Tiger Snake (*Telescopus beetzii*) at Orania, Northern Cape province, South Africa. (Photo: Steon van Rensburg)

Additionally, Mr van Rensburg also observed another *T. beetzii* on 15 March 2023 at 20h30, at Oramed in Orania (29° 49' 07" S, 24° 24' 52" E, QDGC 2924CD; 1 128 m a.s.l.; Fig. 3). The latter was similar to the first, although the top of its head was a darker shade of brown compared to the rest of the dorsal surface, it had about 52 dark blotches (based on photographs additional to Fig. 3) along the body and tail, and four dark markings on the head (anterior and posterior parts of the frontal and posterior parts of both prefrontals). The other species of *Telescopus* in South Africa, Eastern Tiger Snake (*T. semiannulatus*), is similar in appearance to *T. beetzii* but usually lacks dark markings on the head; and it occurs further north (*T. s. semiannulatus* is restricted to savannah areas, while *T. s. polystictus* occurs only peripherally near the Namibian border).

Figure 3. Second Beetz's Tiger Snake (*Telescopus beetzii*) at Orania (Oramed), Northern Cape province, South Africa. (Photo: Steon van Rensburg)

de Waal (1978) recorded two specimens of *T. beetzii* at the farm "Weltevreden (126)" in the Jacobsdal district, south-western Free State province, South Africa. The latter farm could not be located on maps, but the Orania localities are about 45 km SSW of the farm Weltevreden (396), which is in the same eighth-degree cell, and this represents the nearest other record for the species. Apart from the Weltevreden snakes, the Orania records are the only confirmed occurrence of *T. beetzii* near Free State province, and the first reported in the last 45 years. It can be noted, however, that Mr Burke (pers. comm., May 2023) also observed a tiger snake in Orania about 20 years ago. It seems likely that the vegetated banks of the Orange River provide a conduit facilitating the eastward expansion of this species. Considering the proximity of the Orania and Weltevreden localities to the old records of *T. s. semiannulatus* in the Kimberley (2824DB) and Hopetown (2924CA) areas (Broadley 1990; considered questionable by Marais 2014b), it seems likely that the latter records are referable to *T. beetzii.*

ACKNOWLEDGEMENTS

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INSTRUCTIONS TO AUTHORS

AFRICAN HERP NEWS

African Herp News publishes manuscripts in four categories, namely **Articles, Herpetological Surveys, Natural History Notes, and Geographical Distributions**.

CONTRIBUTIONS SUBMITTED IN AN INCORRECT STYLE (SEE GUIDELINES BELOW) WILL BE RETURNED TO THE AUTHORS

The type of submission (e.g., Article, Natural History Note, Geographical Distribution) should be clearly indicated in the file name. As a general guideline, always use the latest issue of *African Herp News* for instructions.

All submissions should be typewritten in English (U.K. spelling), set in 11 pt. Calibri with 1.5 line spacing and a single open line (but no additional space) between paragraphs. Words should not be divided at the right-hand margin. Use the active voice in the first person where possible (except for submissions for Tomorrow's Herpetologists Today). Formatting should be achieved with paragraph settings rather than tabs or spaces. Sentences should be separated by a single space (character). Genus and species names must be italicised. The International System of Units (Systeme Internationale; SI) should be followed. For fractional numbers, use decimal points rather than commas. Measures should be in mm, m or km rather than cm or dm. Integers less than 10 should be spelled out, while those greater than 10 (including 10) should be given numerically. Group integers of thousands together with a space (e.g., 10 500 and 1 230). Use an En-dash to indicate a range of values. Coordinates must be presented in DD° MM' SS" format, rounded to the nearest second. Dates should be presented in the format dd month year. Use the 24-hour clock in the format 14h32; 08h15. All statistical symbols should be italicised. Follow the Fourth Edition (1999) of the International Code of Zoological Nomenclature (available online at www.iczn.org/the-code/the-code-online). Every word in English common names should start with a capital letter (e.g., Namaqua Dwarf Adder; Guttural Toad). Place a full-stop between letters in abbreviations where each letter is pronounced (e.g., U.S.A., U.K., a.s.l.), but not between letters where the abbreviation is pronounced as a word (e.g., CITES). Appendices, Material Examined, Tables, Figure legends and Figures must follow the References.

Common names

Mention both the common and scientific names of a species when first mentioned (unless these are already mentioned in the article heading, such as Natural History and Geographical Distribution notes), thereafter either can be used (but preferably the scientific name), as long as it is consistently used throughout.

Reptiles

For **southern Africa**, use the English common names as they appear on the African Snakebite Institute list (available online at https://www.africansnakebiteinstitute.com/resources).
For **East Africa**, use the common names used in Spawls et al. (2018). Field Guide to East African Reptiles, 2nd edition.
For **Central and West African** snakes, use the common names used in Chippaux & Jackson (2019). Snakes of Central and Western Africa.
For all other reptiles, use the common names as used in the relevant IUCN Red List™ assessments.

Amphibians

For **southern Africa**, use the common names used in du Preez & Carruthers (2017). Frogs of Southern Africa: A Complete Guide, 2nd edition.
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Do not worry if you do not have access to any of the above-mentioned resources – the Editor will standardise the common names as per the above guidelines upon acceptance of your manuscript.

Specimens, photographs and permits

Geographical distribution notes should always refer to either a curated specimen deposited in a recognised national institution (in which case the institution's name and the specimen accession number should be cited) and/or a record submitted to a curated citizen science platform (such as iNaturalist [www.inaturalist.org] or The Biodiversity and Development Institute-FitzPatrick Institute of African Ornithology Virtual Museums [vmus.adu.org.za]. If a note refers to a submission in one of these curated citizen science platforms, a link to the relevant record must be included in the text. *African Herp News* welcomes photographs that can be published together with the relevant note, but the inclusion of photographs does not negate the requirement that photograph(s) should also be submitted to a curated citizen science platform.

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INSTRUCTIONS TO AUTHORS

When a note reports the collecting of a specimen(s), the appropriate permit (and where applicable ethics clearance certificate) numbers need to be cited in the text or under the Acknowledgements. As a rule of thumb, observing and/or photographing reptiles and amphibians in a wild state does not require permits. However, as soon as an individual (or life stage thereof) is transported and/or kept in captivity, this would in most cases be classified as research and would require the appropriate permits.

ARTICLES

African Herp News publishes longer contributions of general interest that would not be presented as either Natural History Notes or Geographical Distributions. A standard format is to be used, as follows:

TITLE (upper case, bold, centred)
AUTHOR(S) (initials, separated by a full stop, followed by surname; upper case, bold, centred)
HEADINGS (upper case, bold, centred)
Subheading 1 (bold, aligned left, lower case except first letter of first word) as required
Subheading 2 (bold, italics, aligned left, lower case except first letter of first word) as required
Body text (justified)
ACKNOWLEDGEMENTS (upper case, bold, centred)
REFERENCES (upper case, bold, centred),
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HERPETOLOGICAL SURVEYS

African Herp News publishes succinctly annotated species lists resulting from local surveys of amphibians and reptiles on the African continent and adjacent regions, including the Arabian Peninsula, Madagascar, and other islands in the Indian Ocean. The area surveyed may be of any size but should be defined as a geographic unit of special relevance to the herpetological community. For example, surveys should address declared or proposed conservation areas, poorly explored areas, biogeographically important localities or administrative zones. The relevance of survey results should be judged by the extent that these records fill distributional gaps or synthesise current knowledge. As far as possible, survey records should be based on accessible and verifiable evidence (specimens deposited in public collections, photographs submitted to curated citizen science platforms and illustrating diagnostic features, call recordings and sonograms submitted to appropriate citizen science platforms, or DNA sequences accessioned into international databases).

Survey results should be presented in the same format as used for Articles (described above), and must additionally include:

SYSTEMATIC ACCOUNT (upper case, bold, aligned left)
Species' name.- (comprising both the common and scientific names and the author citation), immediately followed after the dash by the species account that should include the location, habitat, evidence (including registration numbers and location of voucher specimens and/or links to curated citizen science records), and comments (where required).

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Brief notes concerning the biology of the herpetofauna of the African continent and adjacent regions, including the Arabian Peninsula, Madagascar, and other islands in the Indian Ocean. A standard format is to be used, as follows:

FAMILY (upper case, bold, centred)
Scientific name (bold, italicised, centred)
Author citation (centred; separate author and year with a comma)
English Common Name (centred, all words starting with a capital letter)
KEYWORD(S) (upper case, bold, centred)
AUTHOR(S) (initials, separated by a full stop, followed by surname; upper case, bold, centred)
Body text (justified)
ACKNOWLEDGEMENTS (upper case, bold, centred), if applicable
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The Keyword(s) should be one or two words best describing the topic of the note (e.g., Reproduction, Avian predation, etc.).

The body of the note should include information describing the locality (country; province; location; coordinates; quarter-degree locus; elevation above sea level [a.s.l.]), providing the date, naming the collector(s) or observer(s), and stating the place of deposition and museum accession number of any specimen(s) or providing a link to a photograph(s) in a curated citizen science platform.

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Brief notes of new geographical distributions of amphibians and reptiles on the African continent and adjacent regions, including the Arabian Peninsula, Madagascar, and other islands in the Indian Ocean. Records should be based on specimen(s) deposited in a recognised collection or to photograph(s) submitted to a recognised, curated citizen science platform. A standard format is to be used, as follows:

FAMILY (upper case, bold, centred)
Scientific name (bold, italicised, centred)
Author citation (centred; separate author and year with a comma)
English Common Name (centred, all words starting with a capital letter)
AUTHOR(S) (initials, separated by a full stop, followed by surname; upper case, bold, centred)
Body text (justified)
ACKNOWLEDGEMENTS (upper case, bold, centred), if applicable
REFERENCES (upper case, bold, centred), following the standardised formats described below
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The body of the note should include information describing the locality (country; province; location; coordinates; quarter-degree locus; elevation above sea level [a.s.l.]), providing the date, naming the collector(s) or observer(s), and providing museum accession numbers to any specimen(s) and/or links to supporting material lodged with a curated citizen science platform. The body should also include information on the size, colour and taxonomic characters (e.g., scalation, webbing) used to identify the specimen, as well as the distance to the nearest published locality.

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This section features the latest research and news relating to African herpetology, with the intent of making the *African Herp News* readership more aware of some of the cutting-edge research, discoveries and on-the-ground work being done both locally and abroad on African herps. A standard format is to be used, as follows:

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Body text [justified]
Study citation (italics), if applicable

TOMORROW'S HERPETOLOGISTS TODAY

This is a popular style article showcasing the work and/or research of young, upcoming herpetologists across the African continent. Unlike any of the other submissions, this section should be written in the third person. It could feature work that has already been published and/or which is ongoing. Photographs to accompany the article are highly encouraged and may include study specimens, the study area, and/or the researchers.

A general format should be followed:

AUTHOR NAME (in full; upper case, bold, centred)

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ACKNOWLEDGEMENTS

Acknowledgements should be brief and should not list titles or institutions, but should include the first name and surname in full. Institutions should only be listed where individuals are cited as pers. comm. in the text. Authors must acknowledge collecting permits and animal care protocols together with which author they were granted to, by mentioning the author's initials only (e.g., G.J.A. for Graham J. Alexander). It is recommended that authors acknowledge reviewers by name if they waive anonymity – this is not a requirement but would be greatly appreciated.

REFERENCES

References should be listed in alphabetical order and should only refer to publications cited in the text. Abbreviate journal names in the standard way. Standard abbreviations can be found at various web sites, such as: https://www.ncbi.nlm.nih.gov/nlmcatalog/journals. Insert an empty line between successive references.

References should be in the following format:

Article:

Branch WR. 2007. A new species of tortoise of the genus *Homopus* (Chelonia: Testudinidae) from southern Namibia. Afr. J. Herpetol. 56: 1–21.

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INSTRUCTIONS TO AUTHORS

African Herp News Article:

Rebelo AD. 2021. Natural History Note: Karoo Caco *Cacosternum karooicum* (Boycott, de Villiers & Scott, 2002) – Defensive secretion. Afr. Herp News 76: 27–28.

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Bruford MW, Hanotte O, Brookweld JFY, Burke T. 1992. Singlelocus and multilocus DNA fingerprinting. In: Hoezel AR, editor. The South American Herpetofauna: Its Origin, Evolution, and Dispersal. Molecular Genetic Analysis in Conservation. Oxford, U.K.: IRL Press.

de Villiers AL. 2004. Micro Frog *Microbatrachella capensis* (Boulenger, 1910). In: Minter LR, Burger M, Harrison JA, Braack HH, Bishop PJ, Kloepfer, D, editors. Atlas and Red Data Book of the Frogs of South Africa, Lesotho and Swaziland. SI/MAB Series #9, p. 241–244. Washington, U.S.A.: Smithsonian Institution.

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Thesis:

Russell AP. 1972. The foot of gekkonid lizards: a study in comparative and functional anatomy. [Ph.D. thesis]. London, U.K.: University of London.

IUCN Red List Species Account:

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Website:

Wilgenbusch JC, Warren DL, Swofford DL. 2004. AWTY: a system for graphical exploration of MCMC convergence in Bayesian phylogenetic inference. [accessed 15 April 2011]. http://ceb.csit.fsu.edu/awty.

Uetz P, Freed P, Aguilar R, Hošek J. 2021. The reptile database. [accessed 3 December 2021]. http://www.reptile-database.org.

R Core Team. 2021. R: a language and environment for statistical computing, v4.1.0. Vienna, Austria: R Foundation for Statistical Computing.

Unpublished reports are cited as personal communications. Cite unpublished data as e.g., Alexander (in press), which then appears in the list of references, or as G.J. Alexander (pers. comm.), in which case Graham J. Alexander's name and institutional affiliation should appear under Acknowledgements.

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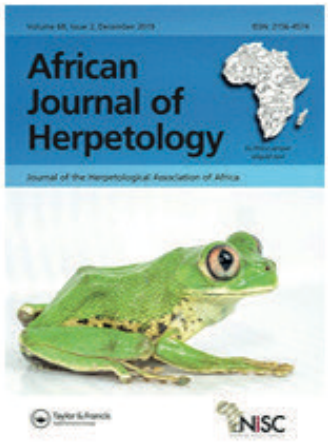

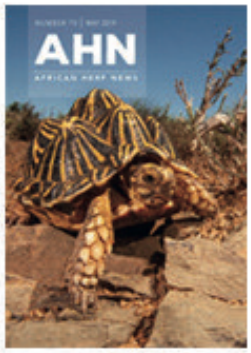

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