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AHN

AFRICAN HERP NEWS

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) and African Herp News, the Newsletter (which includes short communications, natural history notes, book reviews, 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.

COVER PHOTOGRAPH:
Crotaphopeltis hotamboeia
Photograph by: Tyrone Ping

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AHN EDITORIAL

Welcome new members to the HAA!

For this first time, the HAA has awarded one-year memberships to all paid registrants of the HAA conference. Although the conference has yet to happen, I felt it important to send this issue to all new and existing members as it contains the updated HAA Constitution and the HAA's Code of Conduct. The Constitution defines the rules and processes for the governance and operations of the HAA and the Code of Conduct outlines the behaviours, practices and responsibilities expected of each member. I encourage you all to become well acquainted with these pages as they are the core of our association.

Also, please take note of the announcements. We are still looking for donations for the auction and photographic submissions for the photography competition.

I'm looking forward to seeing many of you at the upcoming HAA conference in September.

Jessica da Silva
Editor

CONSTITUTION OF THE

HERPETOLOGICAL ASSOCIATION OF AFRICA

(EST. 1965)

1 NAME

The name of the Association shall be -

HERPETOLOGICAL ASSOCIATION OF AFRICA

hereinafter referred to as the Association or the H.A.A.

2 OFFICIAL MOUTHPIECE

The mouthpiece of the Association shall be the **JOURNAL (*African Journal of Herpetology*:** Print ISSN: 2156-4574 Online ISSN: 2153-3660**)** and **NEWSLETTER (*African Herp News*: ISSN 1017-6187)**.

3 TERMINOLOGY

The term HERPETOLOGICAL, HERPETOFAUNA and HERPETOLOGY shall cover all reptiles, including snakes, lizards, tortoises, crocodiles etc. and all amphibians including frogs, toads etc.

4 AIMS, OBJECTIVES AND POLICY

4.1 GENERAL

4.1.1 The Association is a totally non-profit organisation dedicated to the study of reptiles and amphibians, and in particular those of Africa.

4.1.2 To encourage the study of all aspects of herpetology both in nature and in captivity.

4.1.3 To foster a responsible and enlightened attitude towards all reptiles and amphibians amongst the public and Members of the Association.

4.1.4 To collect and exchange, inter alia, through the medium of the Association Journal and Newsletter, information on all aspects of the herpetofauna of Africa. To encourage the publication of this information in both scientific journals and popular literature.

4.1.5 To collate, publish and make available information of educational value to Association Members and the public at large.

4.1.6 The keeping of venomous and/or dangerous snakes by persons younger than 18 years of age and/or novices shall not be condoned or encouraged by the Association.

4.1.7 To raise money by means of membership fees, lectures, exhibitions, donations and publication of the Association's mouthpiece or in such a manner as the Association shall think fit for the purpose of furthering the aims and objectives of the Association.

4.1.8 To enter into formal or informal relationships with any other body with related aims, should such relationships further the aims of the Association.

4.1.9 To do all things which are incidental or conducive to the attainment of the above aims and objectives.

4.2 CONSERVATION POLICY

4.2.1 To encourage the protection and conservation of all species of herpetofauna and nature in general.

4.2.2 The Association shall co-operate and assist Public and Private Nature Conservation bodies wherever possible and the duly elected Committee shall at all times strive to maintain open channels of communication between the Association and these bodies.

4.2.3 Members issued with permits by the Public (Official) Nature Conservation bodies shall be responsible to both the Nature Conservation body and the Association for their actions and shall not bring the Association into disrepute with such bodies.

4.2.4 The Association will encourage its members to donate private collections, preserved or other, to a legally recognised natural science or natural history institute which actively curates and maintains such collections.

5 MEMBERSHIP

The Association shall consist of the following classes of membership:

Honorary Life Membership
Ordinary Membership
Scholar Membership (Africa only)
Institutional Membership
Exchange Membership

5.1 Honorary Life Membership

It shall be competent for the General Meeting, or by postal vote, provided written nomination and motivation are received by the Committee at least 60 days in advance, to elect any person whose services to the Association and/or the field of

Herpetology have been such as to merit this distinction. Such membership shall carry full privileges and shall be awarded only in exceptional circumstances.

5.2 Ordinary Membership

Ordinary Membership of the Association is open to any person who supports the aims and objectives of the Association and is open to all persons worldwide. Privileges associated to this class of membership shall be divided into two classes.

5.2.1 African Membership:

Members shall have full voting rights, full privileges and shall be entitled to one copy of each issue of the Journal and Newsletter.

5.2.2 Overseas Membership:

Members shall have full voting rights, full privileges and shall be entitled to one copy of each issue of the Journal and Newsletter. Membership fees may be determined independently of other categories and/or classes.

5.3 Scholar Membership

Any person under the age of 18 years who is a recognised scholar (proof is required) and supports the aims and objectives of the Association may become a Scholar Member.

Scholar Members will be allowed all privileges of the Association except that they shall not hold office and shall not have voting rights. Scholar Members shall be entitled to one copy of each issue of the Journal and Newsletter. This category shall only apply to applicants from Africa.

5.4 Institutional Membership

Any Institution or body which can be defined as a multi-user body, e.g. museum, library, zoological garden, reptile park, university, conservation body, subscription agent, book agent, combinations of the above etc., or where a membership is applied for in a name other than that of a person,shall be classed as an Institutional Member and may apply for Institutional Membership.

Institutional Members will be allowed full privileges of the Association except that they shall not hold office and shall not have voting rights as defined under Para. 11.1. Institutional Members shall be entitled to one copy of each issue of the Journal and Newsletter. Membership fees will be determined separately from those of other categories.

5.5 Exchange Membership

Any association, club, society or institution, as defined in Para. 5.4, which feels that there would be a mutual befit in the exchange of publications and/or literature between them and this Association may apply for exchange membership.

Exchange Membership carries no privileges whatsoever, with the exception that Exchange Members shall be entitled to one copy each of the Journal and Newsletter. No membership fees are payable for this category of membership.

Exchange Membership must be beneficial to the H.A.A. and must be approved by the H.A.A. Committee.

5.6 Application for Membership

Application for membership of the Association must be made on the prescribed application form and must bear the signature of the applicant. A copy of the Constitution shall be given to each new Member and the signed application form shall be taken as

proof that the applicant has read, understood and accepted the conditions and implications applicable to membership.

6 MEMBERSHIP FEES

Membership fees will be due and payable on the 1st January and fees shall be determined from time to time by the Committee as set out under Para. 12.3.

7 TERMINATION OF MEMBERSHIP

7.1 Any Member who has failed to pay their subscription by the 31st March in any year will immediately cease to be a Member of the Association and must re-apply for membership.

7.2 Any Member who attempts to use the Association for personal financial gain, or who attempts to misappropriate the funds or assets of the Association shall have his/her membership terminated.

7.3 Any Member shall for gross misconduct have his/her membership terminated. The power of expulsion shall be vested in the Committee. Gross misconduct is defined in the Code of Conduct (Annexure A).

7.4 On termination of membership, no pro-rata refund of subscriptions shall be paid to any Member.

8 COMMITTEE

The Committee shall be composed of the following elected Members:-

Chairperson
Secretary
Treasurer
Journal Editor
Newsletter Editor

A maximum of four Additional Members with portfolios to be decided by the Committee

8.1 The position and composition of Committee Members may be combined in any way in which the elected Committee may feel to be beneficial to the Association, but may not exceed nine (9) permanent members excluding Branch (see 9.1) appointed representatives.

8.2 The Chairperson shall be elected every two years and shall hold office for two years. She/he shall be elected at a General Meeting or by electronic vote if no meeting is to be held at the time of the intended election. The Chairperson may not hold office for more than six consecutive years. In their absence, any other Member of the Committee may be elected Chairperson for the duration of the Chairperson's absence.

8.3 The Secretary, Treasurer and Additional Members as required, shall be elected every two years to hold office for a period of two years and shall be eligible for re-election for a maximum of six consecutive years.

8.4 The Journal Editor and Newsletter Editor shall be elected to hold office for a period of two years and shall be eligible for re-election for a maximum of eight consecutive years.

8.5 In the event of any committee member serving on the committee for the maximum term, such a committee member should take a two-year hiatus before standing for re-election. The two-year hiatus may be waived, on a term by term basis, in the event that no other nominees are put forth for a particular position on the Committee.

8.6 The Committee will have the right to allocate specific portfolios to Additional Members.

8.7 The Committee shall have the power to co-opt as Members of the Committee any person or persons deemed to have a special

knowledge of any subject as and when required. Such co-opted Members shall not have a vote.

8.8 The Committee may appoint Sub-committees.

8.9 The Chairperson shall have a deliberative as well as a casting vote.

8.10 If any Member of the Committee does not or is unable to complete his/her term of office, the Committee shall have the power to fill the vacancy by co-option for the remaining term of office.

8.11 Committee Members not complying with duties and/or responsibilities contained herein or in any other minuted Association By-Laws may be asked by the Committee (under Para. 13.2) to resign, or may have their status terminated, and may be replaced by a co-opted member, usually based on the highest number of votes obtained at the last election.

8.12 A record of Committee and other meetings shall be kept by the Secretary in the form of minutes. These shall be presented by the Secretary to the Committee or Members at the following Committee or other meeting and a Proposer, Seconder and approval by show of hands called for.

8.13 The Committee, in addition to the powers and authority bestowed upon it by this Constitution or otherwise expressly conferred on it, may exercise all such powers and do all such acts as may be of benefit for the proper running, management and existence of the Association and its Members.

9 ASSOCIATION BRANCHES

9.1 Branches may be formed within the Association in order to co-ordinate the activities of members within their own district or area.

9.2 All Members of an Association Branch must be fully paid up Members of the Association and shall have full rights under this Constitution.

9.3 Branches shall be liable for the collecting and forwarding of all monies due to the Association as well as updated membership lists of Branch Members.

9.4 Branches shall be totally self-supporting and shall elect their own Committees.

9.5 One Member from each Branch, normally the Branch Chairperson, who must comply with Para. 9.2, may be elected by the Branch Members, who must comply with Para. 9.2, to stand on the H.A.A. Committee in order to represent the Branch's interests, views and opinions.

9.6 A Branch shall have no separate voting powers except that the duly elected representative to the Association Committee shall have one vote on that Committee.

9.7 This constitution shall be totally binding in all ways on any Branch and its Members formed under section 9.

10 MEETINGS

10.1 General Meetings

Annual General Meetings and/or other General Meetings may be held at the discretion of the Committee or when the situation allows, this owing to the wide distribution of members.

10.2 Special Meetings

Special and/or Extraordinary Meetings may not be called for by members, owing to the wide distribution of members.

10.3 Committee Meetings

Committee Meetings will be held only when the opportunity presents itself or at the discretion of the Committee, this owing to the wide distribution of Committee Members. Notwithstanding the above, all matters affecting the Association shall have the majority approval of the Committee via electronic platforms. Committee Meetings may be conducted on telecommunication platforms.

10.4 Owing to the circumstances presented above, members shall have the right to communicate any dissatisfaction, proposed changes to the constitution etc. directly to the Chairperson who will take it upon themselves to ensure that the matter is communicated to all the other Committee Members and/or Members and that the matter is resolved by a majority decision.

11 FRANCHISE

Only African Honorary Life Members, African Life Members, African Ordinary Members and Overseas Members over the age of 18 years and in good standing have voting rights.

11.1 Notwithstanding Para. 11; Where a membership is registered in a name other than that of a person, e.g. any Institution such as a museum, zoological garden, reptile park, conservation body, library etc., such an Institution shall not have a voting right and neither shall any individuals who are not fully paid up Ordinary Members.

12 QUORUM

12.1 At any General Meeting a quorum shall be one-third of the total number of Members registered as delegates.

12.2 At a Committee Meeting a quorum shall be half the full Committee plus one and will be based on the number of H.A.A. Committee votes present.

13 FINANCES

13.1 The financial year of the Association shall be from the 1st March up to and including the 28th February of the following year.

13.2 A copy of the audited yearly balance sheet will be sent to all Members for inspection by Members.

13.3 Upon recommendation by the Committee, Membership fees and any other charges shall be determined by the Committee as in Para. 12.2.

13.4 Honorary Life Members are excluded from paying subscriptions.

13.5 Subscriptions shall be due on the 1st of January of each and every year. Paragraph 7.1 shall be evoked if subscriptions are not paid by the end of the three month period of grace.

13.6 All monies paid by any Member of the Association and donations to the Association shall be kept in a savings account, current account or any other investment that the Committee deems appropriate for the benefit of the Association and its Members.

13.7 Any single expenditure over the amount calculated by the formula - Ordinary Membership Rate X 25 (e.g. R200 X 25 = R5000) must have Committee approval and shall be based on a binding quotation signed by either the supplier or the initiator and which must be submitted to the Treasurer for clearance before any such transaction is finalised. Paragraph 12.8 will be enforced for failure to comply with the above.

13.8 The Herpetological Association of Africa shall not be liable for any payments which do not comply with Para 12.7. Any Member not complying with Para. 12.7 shall be personally liable for any such expense and neither the Member nor the supplier shall have any claim whatsoever against the Association, its acting or past Committee or Members.

13.9 No profits or gains accrued by the Association in whatever manner will be distributed to any person/persons and the funds of the Association will be utilised solely for investment or for the objectives for which the Association was established.

14 AMENDMENT OF THE CONSTITUTION

14.1 Any proposed amendments to the Constitution may only be considered at a General Meeting, or under 10.4 above.

14.2 Notice of any such amendments to the Constitution must reach the Committee at least 60 days prior to such a meeting, or such a proposal being put forward to African Members by electronic or other written correspondence.

14.3 Any amendments to this constitution will be submitted to the Commissioner of Inland Revenue, Department of Finance, Pretoria, by the Committee.

15 DISSOLUTION OF THE ASSOCIATION

Upon dissolution of the Association, the Committee shall distribute all assets of the Association to a Nature Conservation Organisation, Museum or any other applicable natural science or research institution/s directly involved with the herpetofauna of the African continent. The Committee may stipulate or suggest how the donated money should be spent.

Original Constitution[1]:	1965	(D.G. Broadley)
Revised and amended[2]:	1988	(R.M. Douglas)
Revised and amended[2]:	1991	(R.M. Douglas)
Amended[2]:	1996	(St. Lucia H.A.A. conference)
Corrected version (spelling)	2002	(R.M. Douglas)
Corrected and amended:	2019	(H.A.A. Committee)

Details of revisions and amendments are to be found in the H.A.A. Journal and *African Herp News*.

HAA Code of Ethics and Conduct

Purpose of the Code

The purpose of this code is to set forth guidelines for the ethical conduct of all Herpetological Association of Africa (HAA) members. Membership of the HAA implies adherence to this Code, as well as to the Constitution of the HAA. Overall, members should not engage in conduct that will bring the profession and the HAA in disrepute.

General Statement of Conduct

The goal of the Herpetological Association of Africa is to promote and encourage the study of all aspects of herpetology in nature and captivity. Ethical behavior is important to accomplish this goal. Members of the HAA are expected to display ethical and courteous conduct.

Responsibility and accountability

Members are encouraged to advance public knowledge and understanding of herpetology and to counter false or misleading statements which are detrimental to the wider community.

Members shall encourage and support fellow members in their professional development and, where possible, engage and mentor new entrants to our community.

Members should be aware of their ethical, legal and professional responsibilities incumbent to the specific institution in which they work or represent. All individuals should avoid personal and professional misconduct that might bring the HAA or the reputation of the profession into disrepute. Members shall not speak in the name of the association without the authorisation of the executive committee.

Research ethics

Members conducting research on herpetofauna will comply with all applicable standards, rules, and laws enacted to protect researchers and study organisms. This

includes getting ethical clearance certification, collection permits, export and import permits, and any additional required permission. In addition, members must be sensitive to local customs and needs, whether working locally or abroad.
When collecting reptiles and amphibians, members are expected to replace disturbed habitat as much as possible to its natural condition, and to take no more specimens than necessary for legitimate herpetological purposes. Every effort should be taken to protect endemic populations from over collecting.

When maintaining reptiles and amphibians in captivity, members are expected to provide adequate care and humane treatment for all specimens, including prey animals and adhere to all ethical standards and requirements.

The reputation and integrity of the HAA are tightly linked with its publications. Researchers will only claim authorship of papers on which they have made substantial contributions, including conceiving or designing the study, securing funding, executing the experiments or field work, analysing and interpreting the data, and/or writing the manuscript. Authors may not be added or removed without their agreement, nor be named on a manuscript unless they have approved the final version of the manuscript. Moreover, members will not commit scientific fraud (e.g., through fabricating or falsifying data, suppressing results, deliberately misrepresenting findings, or committing plagiarism). In cases where funding could place authors in potential conflict of interest, they will clearly disclose this in their submission letter and in the text of the manuscript.

Courtesy and respect

HAA is committed to maintaining and promoting a professional environment within which its members treat each other with dignity and respect, without prejudice on any grounds. All members will not discriminate against, bully or harass others on the basis of: cultural and role difference, including (but not exclusively) those involving age, disability, education, ethnicity, gender, language, national origin, political beliefs, race, religion, sexual orientation, marital or family status and socio-economic status.

The HAA characterises unwelcome behaviours as those which are offensive, intimidating, malicious or insulting, an abuse or misuse of power through means intended to undermine, humiliate, denigrate or injure the recipient, or sexual advances and other actions that cause embarrassment, fear, humiliation or distress.

Given the degree of current reliance upon electronic means of communication it should be specifically noted that harassment, bullying and victimisation by members by electronic means is also unacceptable.

Disciplinary Action

Any member may be required to answer enquiries from the Association concerning their conduct within the context of HAA activities. Failure to respond within the requested time frame may lead to suspension and withdrawal of membership. Actions found to be in contravention of the HAA's Code of Conduct may incur withdrawal of membership.

AHN
ANNOUNCEMENTS

AND THE WINNERS ARE...

Congratulations to **Julia Riley** who has successfully secured the *HAA Early Career Researcher Development Grant*. We wish you well with your investigations on scaly sociality!

Also, a very well done to **Mariana Marques**, **Frans Reynecke**, and **Tokota Silindokuhle** who successfully secured financial support to attend the 14th HAA Conference, in Cape St. Francis, 9 - 13 September 2019.

We look forward to seeing you there, and hearing about your exciting research!

Hanlie Engelbrecht
HAA Committee: Student Issues

Enter the prestigious 14th HAA Photography Competition!

Cash prizes are up for grabs, as well as the winning photo being featured on the cover of the African Herp News newsletter

Rules

1. Photos must be of a wild African* reptile or amphibian
2. Photos must be printed on A4 photo paper and submitted in person at registration on the first day of the conference
3. A maximum of three photos per contestant may be entered
4. Photos must be submitted anonymously (no watermarks or names on photos)
5. Photos may not have placed or won in any previous photography competition
6. Photos must be accompanied by a written or typed caption of location, common and scientific names of the animal photographed
7. The competition is open to any attendant of the HAA conference
8. Photos may be collected by the entrant after voting, or donated to the HAA auction

*Africa taken to include the continent of Africa, Madagascar, the Canary Islands, Cape Verde Islands, Gulf of Guinea islands, Mascarenes and Seychelles

14TH HAA AUCTION

We would like to request donations for the traditional *Herpetophilia* Auction, to be held during the 14th HAA Conference in Cape St. Francis, 9-13 September 2019.

Auction items should include herpetological desirables and paraphernalia (e.g. books, reprints, paintings, sculptures, anything else obscure but relevant), and can be donated by anyone, including non-members. Proceeds will benefit the society.

If you have items to donate to the auction, or need any further information, contact Aaron Bauer, aaron.bauer@villanova.edu as soon as possible.

STUDENT ISSUES

The Herpetological Association of Africa is pleased to announce a new initiative aimed at the development of students and early-career researchers in herpetology. Come rub shoulders with the giants and let the networking begin!

Do you have a super cool research project in mind but don't know where to start, and you have no idea about funding opportunities and available resources? Fret no more and come pick the brains of your fellow herpetologists via our Facebook page. Or, are you having trouble figuring out which analytical method to use, or how to make sense of your data for instance? Post your queries on our Facebook page (https://www.facebook.com/pages/biz/Herpetological-Association-of-Africa-144176885638420), and we will try our best to get you expert advice. We are looking forward to stimulating and exciting discussions.

We also post requests for research assistance, advertisements for internships, graduate projects, job openings, and other opportunities that may not be restricted to the field of herpetology. So, keep an eye out, you do not want to miss out on these cool ventures!

What's more, pupils (below the age of 18 years old) and students (registered at a higher education institution) who join the HAA by end Feb 2019 pay for one year and will receive a membership until December 2021! In addition, you will receive the latest newsletter and journal from 2018. That is pay for one year and receive a three-and-a half year membership.

Hanlie Engelbrecht

HAA Committee: Student Issues

DEVON MAIN

INVESTIGATING THE EVOLUTIONARY HISTORY OF *CHAMAELEO*

The complex cornucopia of processes that underlie the evolutionary diversification of life on Earth present a remarkably intricate challenge to those attempting to retrospectively piece together evolutionary relationships among extant species.

These species represent a minute snapshot in time of all the species that have ever existed. Indeed, given the vast timescale of evolutionary processes, this veritable tip-of-the-iceberg with which to work can be severely limiting.

Fortunately, however, evolutionary biologists now have at their disposal a resource that allows for historical evolutionary patterns to be more comprehensively reconstructed than ever before.

This resource is the ability to sequence the DNA of organismal life. Before the advent of DNA sequencing technology, organisms were classified on the basis phenotypic traits, such as those reflected in their morphology, physiology or behaviour. While these traits may still be useful in understanding the biology of species, in many cases they fall short in their ability to be used accurately to classify organisms based on their evolutionary histories.

As a result, the advent of DNA sequencing technology brought light to pervasive discordance between genetics and morphology in certain taxonomic groups (bats, moths, crabs, snakes and frogs, to name but a few). In cases of adaptive radiations such as *Anolis* lizards, Darwin's finches, African cichlids and dwarf chameleons, morphologically distinct organisms cannot be discerned as separate species genetically, while in morphologically conservative radiations, species-level genetic differences are not always discernible morphologically and cryptic diversity (when multiple species are classified under the label of a single species on the basis of a single taxonomic criterion) ensues. The chameleon genus *Chamaeleo* is one such example.

Chamaeleo has a pan-African distribution and is also the only chameleon genus found in Europe, the Middle-East and Southern Asia. *Chamaeleo* species appear to be more tolerant of arid, open savannah and grasslands in contrast to

Figure1. A female Common Flap-necked Chameleon from northern KwaZulu- Natal.

the high specificity for forest of other chameleon genera and, as a result, they have the largest natural ranges of any chameleons. The six *Chamaeleo* species that occupy sub-Saharan Africa are all morphologically similar and have imbricating ranges, which has probably contributed to the quagmire that characterises their taxonomy.

One species in particular, the Common Flap-necked Chameleon (*Chamaeleo dilepis*), as Colin Tilbury puts it, "… single-handedly demonstrates the limitations of a taxonomic system, which relies heavily on external morphology and the influences on this of ontogenic change, sexual dimorphism, altitudinal effects on phenotype and simple intraspecific variation on morphology." *Chamaeleo dilepis* is the most widespread chameleon species globally and exhibits perplexing phenotypic variation across its vast range.

Devon Main has been fascinated by chameleons and their peculiar biology since his primary school years. He first started working on *C. dilepis* during his honours year at the University of Johannesburg under the supervision of Krystal Tolley and Bettine van Vuuren. This honours study was preliminary, focusing only on three populations of *C. dilepis* in South Africa, but already evidence of cryptic diversity in the group became clear with species-level genetic differences found between two *C. dilepis* clades in South Africa for two mitochondrial gene fragments (16S and

Figure 2. A large female Common Flap-necked Chameleon from Blouberg in northern Limpopo showing its striking orange gular folds and its gaping mouth. This is defensive behaviour often seen when chameleons feel threatened.

ND4). The findings of the study were published in African Zoology (2018, volume 53, pages 11-16). These findings were enough to set Devon on a path towards understanding the evolutionary history of not just *C. dilepis* but the *Chamaeleo* genus as a whole - especially given that *C. dilepis* is distributed as far north as Ethiopia and as far west as Gabon and his honours study only included South African populations. Accordingly, the central aim of his MSc became to investigate the evolutionary diversification of *Chamaeleo* by carrying out a genus-wide molecular phylogeny of *Chamaeleo*, accompanied by model-based molecular species delimitation and an ancestral area reconstruction of the genus. Fortunately for Devon, many samples had already been collected by herpetologists over the previous two decades and were stored in the South African National Biodiversity Institute (SANBI)'s tissue bank. This made the project vastly more feasible given the myriad politically unstable countries throughout which *Chamaeleo* species are distributed. Devon sequenced fragments of two mitochondrial (16S and ND4) and two nuclear (RAG1 and PRLR) genes for representatives of all species in the genus and across their natural ranges wherever possible. Not surprisingly, Devon discovered that within *Chamaeleo*, cryptic diversity is not unique to *C. dilepis*. In fact, all evidence suggested that *C. anchietae* actually comprises two species and *C. gracilis* three species. Furthermore, with the larger, more comprehensive sampling complement, Devon found that what initially appeared to be differences at the species level between South African populations of *C. dilepis* were actually not species-level differences but rather signatures of ancestral population structure. However, *C. dilepis* was found to comprise three distinct species across its natural range in Africa. Devon's ancestral area reconstruction of the genus suggested that the most recent common ancestor

Figure 3. A gravid female Common Flap-necked Chameleon from Hoedspruit, Mpumalanga. Note the dark colouration with yellow spots. The highly variable phenotypic plasticity in both colour and posterior extent of the casque (the flaps from which this species gets its common name) have contributed to pervasive historical taxonomic issues with this species.

of *Chamaeleo* likely emerged during the Eocene, approximately 50 million years ago, in the Zambezian region and probably made use of mesic corridors that opened up during forest contractions in the Oligocene and Miocene to move into North Africa and Eurasia where some of its extant members are currently found. These findings shed light on the evolution of a uniquely interesting group of lizards but with modern next-generation sequencing technologies becoming ever-more available, perhaps these findings are just the tip of this evolutionary iceberg. Isn't it exciting to be an evolutionary biologist in the 21st century?!

MALPOLON INSIGNITUS (GEOFFROY DE SAINT-HILAIRE, 1809) IN THE HOGGAR MOUNTAINS (SOUTHEAST ALGERIA)

B. BAKHOUCHE, D. ESCORIZA, A. SÁNCHEZ-VIALAS, D. KHALIL & M. CALVO-REVUELTA

The genus *Malpolon* is distributed over a large part of the Mediterranean basin, with two recognised species: Montpellier Snake *M. monspessulanus* (Hermann 1804), in the western region (Iberian Peninsula, south-eastern France, north-western Italy, Morocco and western Algeria), and Eastern Montpellier Snake *M. insignitus* (Geoffroy De Saint-Hilaire 1809) in the eastern region (Balkans, south-western Asia and northern Africa, except the western part; Sindaco et al. 2013). There is geographical contact between the two species in northern Algeria, however, the extent of this overlap in their distribution is unknown (Carranza et al. 2006).

In North Africa *M. insignitus* is distributed throughout the Mediterranean belt of Egypt, Libya, Tunisia, eastern Algeria, and Lampedusa Island (Italy), although it could extend further west, reaching the Hauts-Plateaux in eastern Morocco (Bons and Geniez 1996; Geniez 2015). This species can tolerate moderate levels of aridity and penetrates into the outer margins of the Sahara Desert, reaching some inland oases such as Siwa in north-western Egypt and Tozeur in south-western Tunisia (Baha El Din 2006; Selmi 2007) (Fig. 1). In Algeria, *M. insignitus* could reach its southern limits along the northern margin of Saharan Atlas (Sindaco et al. 2013; Geniez 2015). However, in June 2015, a female of *Malpolon* was found 1300 km further south in the Hoggar region (Bakhouche and Escoriza 2017).

The Hoggar Mountains are located in the Tamanrasset region of southeast Algeria, extending over an area of approximately 500 000 km^2 (Boissonnas et al. 1969). The maximum elevation of the western part of this mountainous system is located in the Mount Tahat (2908 m asl; Ayadi et al. 2000). This important topographic gradient allows for more humid microclimatic conditions in the massif than in the surrounding hyper-arid plains, having irregular precipitation cycles associated with the west Africa monsoon (Cuesta et al. 2010). This montane microclimate sustains relictual Mediterranean plant communities which occur mostly around the wadi beds (Tzanakakis 2003; Karim 2005). Similarly, isolated populations

of fish (e.g. *Luciobarbus biscarensis amguidensis*; Doadrio 1994), amphibians (e.g. *Sclerophrys xeros*; Escoriza and Ben Hassine 2019), and reptiles (e.g. *Chalcides ocellatus*; Le Berre 1989), both of Afrotropical and Mediterranean origin, are found in this region of the Central Sahara.

The finding of this *Malpolon* specimen in the western part of the Hoggar Mountains added another species of a Mediterranean reptile to the species inventory of the region (Le Berre 1989; Geniez 2015). However, the unknown geographical boundaries between *M. monspessulanus* and *M. insignitus* and the morphological similarity between females of both species did not allow for a definitive diagnosis (Geniez 2015; Bakhouche and Escoriza 2017). In order to identify the *Malpolon* species we genotyped the specimen and placed it in a phylogeographic framework using available published data (Carranza et al. 2006).

A tissue sample from the tip tail was collected by the first author of the single *Malpolon* specimen found at In Amguel (Tamanrasset wilaya), Hoggar Mountains (Bakhouche & Escoriza 2017) (Fig. 1). This sample was stored in ethanol (96% to absolute) at -20 ° C. Genomic DNA was extracted using the Qiagen DNeasy extraction kit (Qiagen, Valencia, CA, USA). Polymerase chain reaction (PCR) was used to mitochondrial 12S rRNA gene using the set of primers 12S268 and 12S916 (Utiger et al. 2002). Polymerase

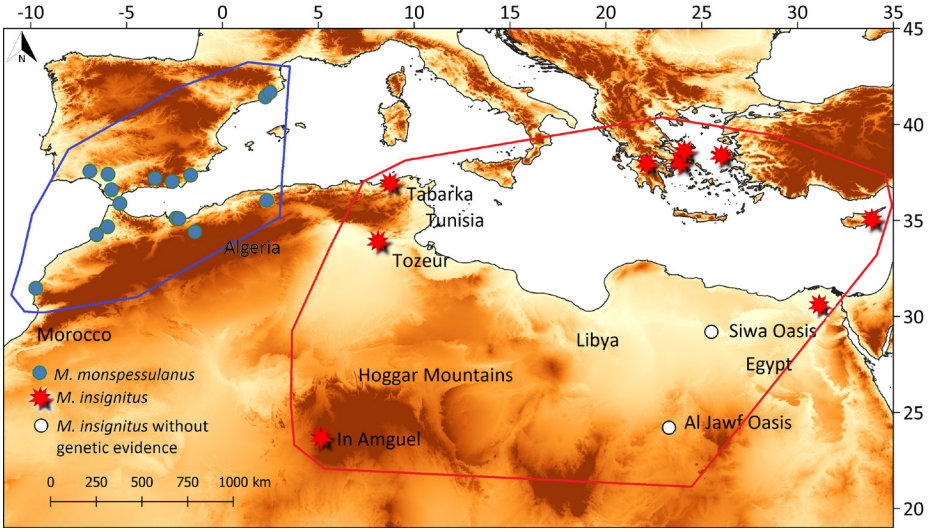

Figure 1. Map showing the sampling locality (In Amguel) and those included in the genetic analysis, obtained from Carranza et al. (2006). Blue circles: *Malpolon monspessulanus*; red stars: *Malpolon insignitus*; white circles: possible localities of *Malpolon insignitus*, but without genetic evidence. The polygons comprise the range of localities of each species: blue (*M. monspessulanus*) and red (*M. insignitus*).

chain reactions were performed in 25 µl, including 23 µl of the PCR mix: 17.5 µl of H2O, 2.5 µl reaction buffer with MgCl2 (2mM), 1 µl dNTP (10mM), 0.8 µl MgCl2 (50mM), 0.5 µl of each primer (10mM), 0.4 µl Taq polymerase (Biotools, 5U/mL) and 2 µl of template DNA. PCR conditions were 5 min at 95º C, 40 cycles with a denaturing temperature of 94º C (45 s), annealing at 42º C (45 s) and extension at 72º C (1 min) with a final single extra extension step at 72º C for 10 min. PCR products were checked in 1% agarose gel and products with expected length were directly sequenced at Macrogen Inc. (Macrogen Europe, Amsterdam, The Netherlands).

We retrieved 26 12S sequences (eight corresponding to *M. insignitus* and 17 to M. monspessulanus) from GenBank (Carranza et al. 2006), and deposited one newly generated sequence for

Table 1. Specimens used, codes and GenBank accession numbers.

Taxon	Locality	Specimen code	GenBank accession codes (12S)
Malpolon insignitus	El Cairo, Egypt	E14053.4	DQ451951
Malpolon insignitus	Tozeur, Tunisia	E2509.14	DQ451950
Malpolon insignitus	Tabarka, Tunisia	E2509.13	DQ451949
Malpolon insignitus	Vrysoulles, Cyprus	E14053.3	DQ451948
Malpolon insignitus	Khíos (Chios) island, Greece	E14053.5	DQ451947
Malpolon insignitus	Evritania, Greece	E14053.8	DQ451946
Malpolon insignitus	Kletoria Lake, Peloponnese, Greece	E14053.7	DQ451945
Malpolon insignitus	Euboea, Greece	E14053.6	DQ451944
Malpolon insignitus	In Amguel, Algeria	ASV18000	MN092359
Malpolon monspessulanus	Essaouira, Morocco	E2509.17	DQ451943
Malpolon monspessulanus	5 km N El Aouedj, Algeria	E9124.1	DQ451942
Malpolon monspessulanus	Huétor Santillán, Spain	E1209.4	DQ451941
Malpolon monspessulanus	Alboloduy, Almería, Spain	E5121.50	DQ451940
Malpolon monspessulanus	Badalona, Spain	E14053.9	DQ451939
Malpolon monspessulanus	Sevilla, Spain	E14053.12	DQ451938
Malpolon monspessulanus	Sant Celoni, Spain	E14053.11	Q451937
Malpolon monspessulanus	San José del Valle, Cádiz, Spain	E14053.10	DQ451936
Malpolon monspessulanus	San Juan de Terreros, Spain	E5121.45	DQ451935
Malpolon monspessulanus	8 km W of Ras el Ma, Morocco	E2509.16	DQ451934
Malpolon monspessulanus	Huelva, Spain	E5121.54	DQ451933
Malpolon monspessulanus	North of Chrea, Algeria	E9124.2	DQ451932
Malpolon monspessulanus	Ras el Ma, Morocco	E2509.18	DQ451927
Malpolon monspessulanus	North of Kenitra, Morocco	E5113.13	DQ451929
Malpolon monspessulanus	Close to Saidia, Morocco	E14053.2	DQ451930
Malpolon monspessulanus	Souk el Arba de Beni Hassan, Morocco	E2509.15	AY643312
Malpolon monspessulanus	Ceuta, NW Africa, Spain	E2509.21	DQ451928
Malpolon moilensis	Biskra, Algeria		AY643313

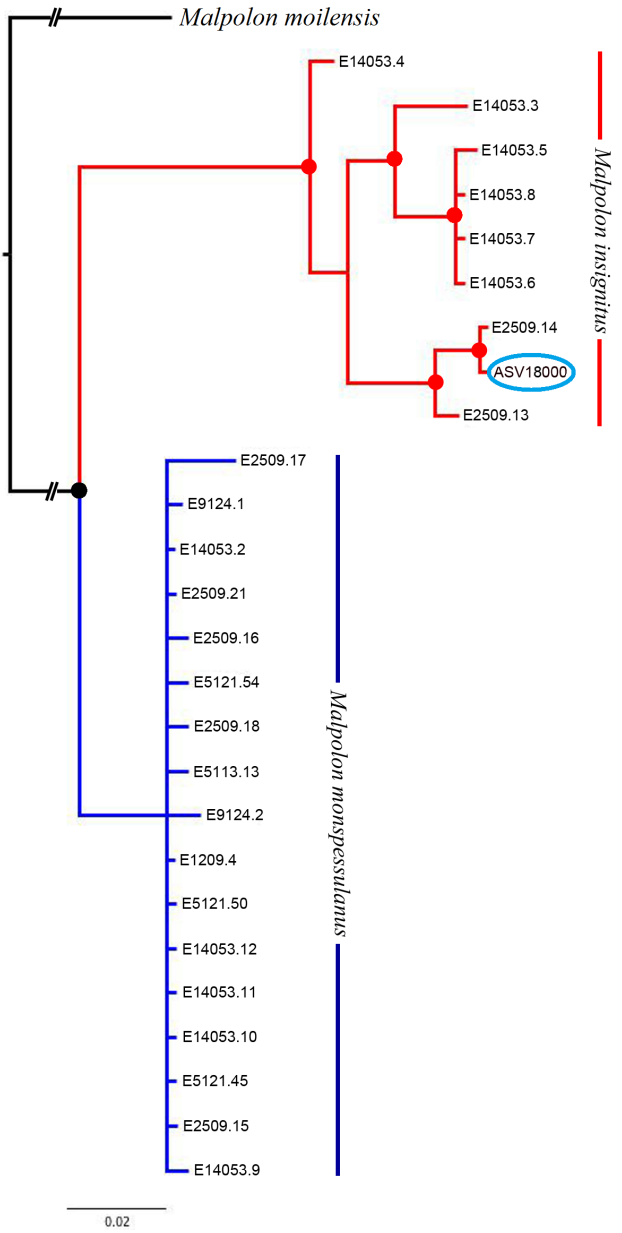

Figure 2. Bayesian inference phylogenetic tree of the genus *Malpolon* based on 509 bp of the mitochondrial 12S gene fragment. Dots indicate nodes with posterior probabilities = 1. The sample from Hoggar Mountains is indicated by a blue coloured ellipse.

the Malpolon specimen collected from Hoggar Mountains (Algeria) onto GenBank (accession number: MN092359; Table 1). *Malpolon moilensis* was used as an outgroup. The geographical origin, specimen code and GenBank accession number of each specimen are provided in Table 1. All sequences were compiled using Geneious Prime 2019.0.4 (Kearse et al. 2012) to assemble and to edit the sequence contigs, and aligned with MAFFT (Katoh and Toh 2008).

Phylogenetic analyses were carried out under the Bayesian Inference framework conducted with MrBayes v.3.2.3 (Ronquist et al. 2012). The analysis started with a randomly generated tree and were run four Metropolis coupled Monte Carlo Markov chains for 10x107 generations and sampling every 10000. We discarded 25% of the obtained trees as burn-in, and generated a 50% majority rule consensus tree in MrBayes. We used the GTR+I+G substitution model. The final alignment of 509 base pairs of mitochondrial partial genes 12S for 26 specimens. The phylogenetic tree (Fig. 2) showed a strongly supported relationship (Bayesian posterior probability, PP=1.00) between the specimen from the Hoggar Mountains and the southern Tunisian samples of *M. insignitus*. The general tree topology is similar to the one obtained by Carranza et al. (2006) showing that the clade formed by *M. insignitus* was more structured than the clade of *M. monspessulanus* (Fig. 2).

Our analysis revealed that the *Malpolon* specimen sampled in Hoggar Mountains is nested within the Tunisian group of *M. insignitus*, being genetically very similar to the sample from the oasis of Tozeur (southwest of Tunisia), which is the geographically nearest locality (Fig. 1). Similar genetic structure is found in another species of Mediterranean origin that appear isolated in the massifs of the Central Sahara, e.g. *Pelophylax saharicu*s (Nicolas et al. 2015). These mesic species could have reached the Central Sahara during the wet phases at the end of the Pleistocene or during the Holocene, becoming isolated by a subsequent arid phase (Hays 1975; Migliore et al. 2013). Furthermore, this record may not represent the only population of *M. insignitus* present in the Central Sahara, because this species was also recorded in the Al Jawf oasis (southeast of Libya; Zavattari 1937) (Fig. 1). However, the presence of *M. insignitus* in this locality has not been recently confirmed (Bauer et al. 2017). It is also possible that this single specimen may originate from an accidental translocation, as is reported for some insular populations of *M. monspessulanus* (Mateo 2015).

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AHN
NATURAL HISTORY
notes

COLUBRIDAE

Crotaphopeltis hotamboeia
(Laurenti, 1768)
Red-lipped Snake

PREDATION

J. REISSIG, C. A. TIEDEMANN, J. MALAN & D. BOSHOFF

Nottingham Road, KwaZulu Natal Province, South Africa (29°21'7.44"°S, 29°58'54.54"°E, 2929BD, 1514 m asl).

On the 15th of February 2019, an adult male Midlands Dwarf Chameleon (*Bradypodion thamnobates*) was found in a roadside hedge at a height of approximately 1.6 m, in the process of being injested by a Red-lipped Snake (*Crotaphopeltis hotamboeia*) (Fig. 1). This incident was observed at 23:11 at a temperature of 16.5°C. It was raining at the time.

The Red-lipped Snake is well known to feed on amphibians and the occasional reptile. Confirmed reptiles that have been recorded in the diet of this species are: Common Tropical House Gecko (*Hemidactylus mabouia*), Cape Gecko (*Pachydactylus capensis*), Golden Spotted Gecko (*Pachydactylus oculatus*), Eastern Ground Agama (*Agama aculeata distanti*) and Rhombic Night Adder (*Causus rhombeatus*) (R. Maritz, pers. comm. 2019).

Figure 1. The *Bradypodion thamnobates* being eaten by a *Crotaphopeltis hotamboeia.* Photo: Dean Boshoff

Only two previous records of predation on various species of *Bradypodion* by *Crotaphopeltis hotamboeia* could be found. These are *B. ventrale* (Haagner and Branch 1993) and *B. dracomontanum* (Raw 1993).

Due to the scarcity of the event which we observed, we decided to publish this note formally instead of adding it to the Facebook group "Predation Records – Reptiles and Frogs (Sub-Saharan Africa)". The authors are fully aware that Facebook groups, such as the one named above, are of great importance; however, we do also feel that many people do not have access to such platforms. Consequently, observations which lie outside the norm should be officially published in a reputable source.

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LAMPROPHIIDAE: APARALLACTINAE

Aparallactus modestus ubangensis (Boulenger, 1897)
Ubangi Centipede-eater

REPRODUCTION

J. BRECKO, D. MEIRTE & O. S. G. PAUWELS

The Western Forest Centipede-eater, *Aparallactus modestus*, is a small burrowing snake from Western and Central Africa (Wallach 2014; Spawls et al. 2018). Recent phylogenetic work on the Aparallactinae reveals that *A. modestus* is a species complex

Figure 1: µCT tomogram of the holotype of *Aparallactus modestus ubangensis* (BE-RMCA-VERT-R.12) showing four eggs in situ. Scale bar represents one centimetre.

with two major lineages: a Western African lineage (*A. m. modestus*) and a Central African lineage (*A. m. ubangensis*) (Portillo et al. 2018). So far only two specimens of *A. modestus* have been identified as gravid females. The first (MCZ 48436; snout-vent length 435 mm), collected in Mabira Forest, Uganda (0°23'54"N 33°0'59"E) on 13 November 1938, contained seven eggs measuring about 25 x 8 mm (Loveridge 1942, 1944). The second (MCZ R-7847), collected in Kribi, Cameroon (02°56'06"N 09°54'36"E, collecting date unknown)—identified in 1910 by Thomas Barbour as *Polemon barthii* (according to the Museum of Comparative Zoology's catalogue, scanned and made available online by Ernst Mayr Library), but later re-identified as *A. modestus* by Loveridge (1944)—also contained seven eggs, measuring 20 x 5 mm (Loveridge 1944).

The holotype of *Aparallactus modestus ubangensis* (BE-RMCA-VERT-R.12) from Zongo near the Ubangi Rapids, Democratic Republic of the Congo (4°20'36"N 18°35'34"E), was described by Boulenger (1897) as *A. ubangensis*. We digitised this specimen, a female with a snout-vent length of 335 mm, using high resolution x-ray computed tomography (Fig. 1; RX EasyTom 150, 110 kV, 30 W, 35.24 µm voxel size; segmentation and rendering done using Dragonfly software version 4.0 for Windows [Object Research Systems Inc., Montreal, Canada, 2019; software available at http://www.theobjects.com/dragonfly]). From the 3D rendering of the reconstructed slices it was evident that she contained four eggs with dimensions ranging from 22.4-29.5 x 5.3-5.8 mm. The eggs were measured in Dragonfly ORS using the measuring tool.

As mentioned above, until now the only reproductive data available for *A. modes-*

tus was derived from two gravid females. The specimen from Cameroon (Loveridge 1944) was found within the geographical range of *A. m. modestus* according to the map in Portillo et al. (2018). The Uganda specimen (Loveridge 1942, 1944) was found east of the eastern-most confirmed record of *Aparallactus modestus ubangensis* according to Portillo et al. (2018), and its identity should therefore be re-evaluated. Our clutch size report thus represents the second, if not the first, for this eastern subspecies. It also documents a much smaller clutch size than previously recorded for *A. modestus*.

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GERRHOSAURIDAE

Gerrhosaurus typicus
(Smith, 1837)
Karoo Plated Lizard

B.N. CLOETE, R. MOHAMED, T.J. PONTON, S. TOKOTA & B. MARITZ

Two Karoo Plated Lizards, *Gerrhosaurus typicus*, were observed during a herpetofaunal survey in Koeberg Private Nature Reserve, Western Cape Province, South Africa. The first specimen was observed, captured, and released on 23 October 2018 at a site (33°38'3.8"S; 18°25'8.9"E; ~46 m asl) that had been cleared of alien vegetation, leaving behind only natural Cape Flats Dune Strandveld. The individual measured 100 mm + 95 mm in length (although the tail was truncated) and weighed 31.7 g (using a tape measure and digital pocket scale, respectively). It was not photographed. The second specimen (Fig. 1) was found on 26 October 2018 at a site (33°39'4.4"S; 18°26'51.2"E; ~50 m asl) that had been completed burnt about three years prior, but has since regrown with natural Cape Flats Dune Strandveld vegetation. This second individual measured 100 mm + 190 mm and weighed 34.3 g. Both lizards were light brown in colour with scattered dark spots and a distinctive pair of white lateral stripes. Prefrontals were separated, while the frontonasal and rostral were in contact. Dorsal scales were keeled and in 23 longitudinal rows. Ventral plates were in 10 longitudinal rows and glandular scales were present on either side of the cloaca in rows of 15. The specimens differ from *G. flavigularis* on the basis of the contact between the frontonasal and rostral scales, the higher number of ventral scale rows (*G. flavigularis* has eight rows), and overall colouration (Branch 1998).

Bates et al. (2014) indicate that *G. typicus* occurs within the Western Cape, but appears to be absent along the west coast south of Langebaan. Our records extend the western edge of the distribution of this species significantly southwards approximately 70 km from both the nearest known records at quarter-degree cells 3218DC and 3319CB. To our knowledge, the Koeberg specimens are the first records of *G. typicus* within the City of Cape Town. Individuals are known to burrow, making them hard to detect (Loveridge 1942), which might account for the low number of locality records and gaps in its distribution range Bates et al. (2014).

The two new records along the west

Figure 1. Karoo Plated Lizard (*Gerrhosaurus typicus*) from Koeberg Private Nature Reserve, Western Cape, South Africa. Photo: Silindokuhle Tokota.

coast provide a valuable addition to our knowledge of the distribution of *G. typicus* within the greater Cape Town region and suggest that its range extends further down the west coast than previously thought.

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SCINCIDAE

Feylinia currori
Gray, 1845
Curror's Limbless Skink

O.S.G. PAUWELS

An adult individual of the fossorial skink *Feylinia currori* was collected by Patrick Derleyn (then based in Bujumbura) on 23 April 1976 in "Musigati, province Bubanza, Burundi." Musigati, whose approximate geographic coordinates are 3°04'06.5"S 29°27'40.7"E, lies at about 1530 m asl in north-western Burundi, about 25 km east of the border with the Democratic Republic of the Congo, and about 30 km south of the border with Rwanda. The skink specimen was entered in July 1976 in the herpetological collections of the Royal Belgian Institute of Natural Sciences and received the register number RBINS 18731. It had remained unidentified until I examined it in March 2019.

It shows a snout-vent length of 231 mm. The tail is partly detached, obviously as a pre-mortem caudal autotomy given the constriction at the autotomy site. The tail part still in place measures 11 mm, the detached part 66 mm; the total tail length is thus 77 mm and the total length 308 mm (ratio total length/tail length 4.0). All scales are smooth. The rostral is large, bordered laterally by the left and right first supralabials, and posteriorly by two supranasals. The nostril is horizontally elongate, pierced in the rostral, posteriorly linked by a furrow to the first supralabial. Although poorly contrasted, the eye is visible through the ocular scale. There are five supralabials on each side. The third supralabial is in contact with the ocular scale on each side. There are three infralabials on each side. The large mental is followed by a wide postmental in contact with the first infralabial on each side. There are 24 scale rows around body at one head length behind head, 26 scale rows around midbody, and 22 scale rows at one head length before cloaca. There are 142 longitudinal rows of scales between the postmental (not included) and the precloacal scales (not included); 134 longitudinal rows of scales between the post-parietals (not included) and a point above the cloacal slit. There are two enlarged precloacal scales. After more than 40 years in preservative, each body scale appears speckled with black in its central part, more intensely on the dorsum than on the belly. The dark area

of each scale is surrounded by beige, rendering a global uniformly reticulate pattern (see Fig. 1). Only the rostral, the first supralabial on each side, the mental and the first infralabial on each side appear completely beige.

The genus *Feylinia* was reviewed by Brygoo and Roux-Estève (1983), who provided a distribution map for each species. Updated distribution maps for *Feylinia currori*, the only member of the genus to reach East Africa, were provided by Wagner and Schmitz (2006) when they published the first record of the species for Kenya, and in the field guides to the reptiles of eastern Africa by Spawls et al. (2004, 2018). *Feylinia currori* seems much less common in eastern than in central Africa; there is indeed only a handful of records from Uganda, Tanzania and Kenya, but none in Burundi or Rwanda, while the species is well known in the Democratic Republic of the Congo, and westwards to Nigeria, with some unconfirmed records further West. This new record represents the first mention of the genus Feylinia from Burundi, and fills a geographical distribution gap between the known localities in eastern Democratic Republic of the Congo and western Tanzania.

The newly reported *Feylinia* specimen belongs to a small reptile collection (registered under I.G. 25443)

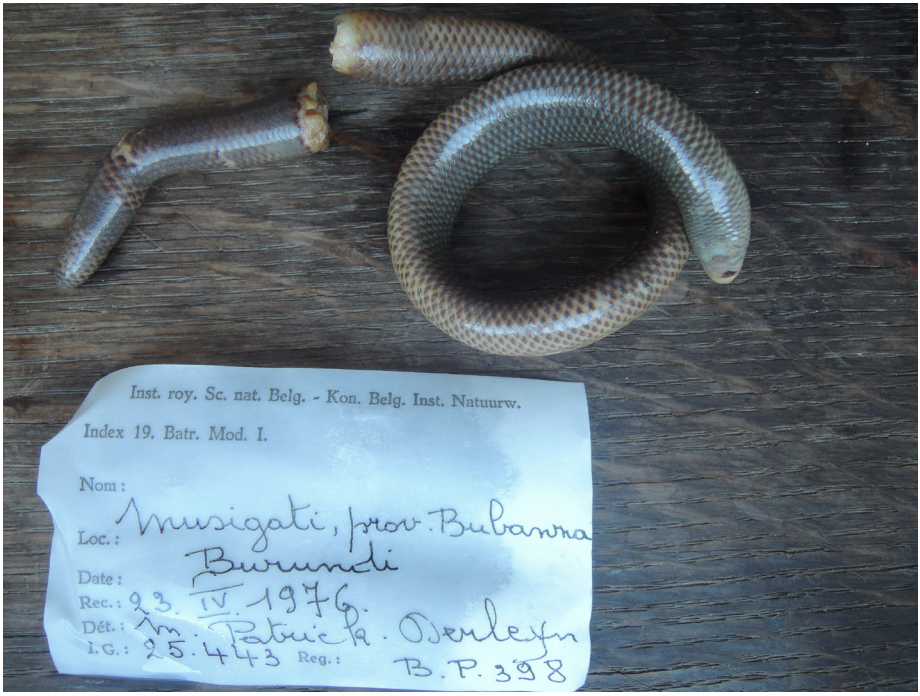

Figure 1. Preserved adult *Feylinia currori* (RBINS 18731) from Musigati, Burundi.

including three other individuals with the same locality data: a *Philothamnus carinatus* (RBINS 14502) (Colubridae), an *Atractaspis irregularis* (RBINS 14501) and a *Buhoma depressiceps* (RBINS 14503) (Lamprophiidae), all three identified by Van Wallach in 1988. These three snake species are already recorded from Burundi and Musigati area (Wallach et al. 2014).

ACKNOWLEDGMENTS

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HYPEROLIIDAE

Hyperolius stictus
Conradie, Verburgt, Portik, Ohler, Bwong, Lawson 2018
Yellow-spotted Reed Frog

A.R. MIGUEL & W. CONRADIE

During a recent herpetological survey of the Gile National Reserve, Mozambique, the lead author collected an unidentified *Hyperolius* (Fig. 1). The specimen was collected from an overhanging tree branch along a drainage line in open Miombo woodland near Musseia, Pebane, Gile National Reserve, Zambezia Province (16°40'57.0"S 38°44'13.3"E) on 5 March 2019 (Fig. 2). Photographs were sent to the second author for identification, upon which it was identified as the newly described *Hyperolius stictus*, based on the diagnostic small yellow spots anterior and posterior of the eye and groin (Conradie et al. 2018). The following

Figure 1. Yellow-spotted Reed Frog, *Hyperolius stictus*, from Gile National Reserve, Mozambique.

Figure 2. Collection site of *Hyperolius stictus* in Gile National Reserve, Mozambique.

sympatric species of frogs were found: *Arthroleptis stenodactylus*, *Chiromantis xerampelina*, *Hemisus marmoratus*, *Kassina senegalensis*, *Lepetopelis mossambicus*, *Phrynobatrachus mababiensis* and *Xenopus laevis*.

This new record motivated the second author to re-examine *Hyperolius* specimens from the Port Elizabeth Museum herpetology collection that originate from Mozambique. This led to the discovery of two additional specimens from the coastal regions of Zambezia Province that can be assigned to *H. stictus* based on the unique small dorsolateral yellow spots. The first specimen (PEM A6960) was collected from a pit in Gum Coppal Forest, on the road to Mala Mala (17°3'26.6004'' S 38°44'6.6984''E), by Bill Branch on 6 December 1997. The second specimen (PEM A6841) was collected from a site East of Moebase Village (no original coordinates, collector or date provided, but the village is situated at 16°58'57.9''S 38°43'43.1004''E). These two records are 40 km southeast from the Gile National Reserve record.

Hyperolius stictus is the most recently described species of frog from coastal northern Mozambique. It was originally only known to occur from Mocimboa da Praia northwards to the Tanzanian border in Cabo Delgado Province, but is expected to occur in southern Tanzania as well (Conradie et al. 2018). These new records represent a range extension of over 540 km south, as well as the first record outside Cabo Delgado Province. Thus, the species is considered much wider spread than initially understood and is expected to occur all along the coastline of northern Mozambique.

Some recent noteworthy range extensions reported from northern Mozambique include: *Thelotornis usambaricus* from Vamizi Island, Quirimbas Archipelago and which is the first record for Mozambique of this species (Broadley and Farooq

2013), *Scolecomorphus kirkii* for Mount Namuli (Farooq and Conradie 2015) and Mount Mabu (Conradie et al. 2016), *Mertensophryne anotis* from Taratibu (Farooq et al. 2015), *Duberria shirana* for Mount Namuli and first record for Mozambique (Conradie et al. 2016). And most recently, Branch et al. (2019) reported new records of *Philothamnus macrops* for Mozambique, representing a range extension of 1000 km south from Tanzania. This new information on range extensions allows us to better understand the distribution of poorly known species.

ACKNOWLEDGEMENTS

We thank Luke Verburgt, who seconded the identification of *Hyperolius stictus*, as well as Christa Conradie for providing proofreading. We would also like to thank the staff of Gile National Reserve for permission to conduct research on reptiles and amphibians of this important Mozambican Conservation Unit.

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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:

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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 reserves, 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, photos submitted illustrating diagnostic features, call recordings and sonograms, 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:

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The body of the note should include information describing the locality (Country; Province; quarter-degree locus; location; latitude and longitude in D° M' S" format; elevation above sea level), providing the date (day, month, year), naming the collector(s), and stating the place of deposition and museum accession number or describing the fate of the animal.

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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 submitted should be based on specimens deposited in a recognised collection. A standard format is to be used, as follows:

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English common name (using Bill Branch's Field Guide to Snakes and Other Reptiles of Southern Africa, third edition, 1998, for reptiles; and Du Preez and Carruthers' A Complete Guide to the Frogs of Southern Africa, 2009, for amphibians as far as possible).

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study specimens, study area, and/or researchers.

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Bates MF, Boshoff D. 2018. Natural History Note: Death-feigning: *Psammophis crucifer.* African Herp News 67: 19.

Broadley DG, Farooq HOM. 2013. Geographical Distributions: *Thelotornis usambaricus* Broadley, 2001. African Herp News 59: 50.

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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Chapter in a collection: 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: IRL Press.

Thesis: Russell AP. 1972. The foot of gekkonid lizards: a study in comparative and functional anatomy. [PhD thesis]. London: University of London.

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.

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