

**THE BRITISH
HERPETOLOGICAL SOCIETY
BULLETIN**



**No. 48
Summer 1994**

THE BRITISH HERPETOLOGICAL SOCIETY

*c/o Zoological Society of London
Regent's Park, London NW1 4RY*

Registered Charity No. 205666

The British Herpetological Society was founded in 1947 by a group of well-known naturalists, with the broad aim of catering for all interests in reptiles and amphibians. Four particular areas of activity have developed within the Society:

The Captive Breeding Committee is actively involved in promoting the captive breeding and responsible husbandry of reptiles and amphibians. It also advises on aspects of national and international legislation affecting the keeping, breeding, farming and sustainable utilisation of reptiles and amphibians. Special meetings are held and publications produced to fulfill these aims.

The Conservation Committee is actively engaged in field study, conservation management and political lobbying with a view to improving the status and future prospects of our native British species. It is the accepted authority on reptile and amphibian conservation in the UK, works in close collaboration with the Herpetological Conservation Trust and has an advisory role to Nature Conservancy Councils (the statutory government bodies). A number of nature reserves are owned or leased, and all Society Members are encouraged to become involved in habitat management.

The Education Committee promotes all aspects of the Society through the Media, schools, lectures, field trips and displays. It also runs the junior section of the Society - THE YOUNG HERPETOLOGISTS CLUB (YHC). YHC Members receive their own newsletter and, among other activities, are invited to participate in an annual "camp" arranged in an area of outstanding herpetological interest.

The Research Committee includes professional scientists within the ranks of the Society, organises scientific meetings on amphibian and reptile biology and promotes The Herpetological Journal, the Society's scientific publication.

Meetings

A number of meetings and events take place throughout the year, covering a wide range of interests.

Publications

The BHS Bulletin, Herpetological Journal and YHC Newsletter are all produced quarterly. There are in addition a number of specialised publications available to Members and produced by the various Committees, such as notes on the care of species in captivity, books and conservation leaflets.

Subscriptions

All adult subscriptions become due on the first day of January each year. Payment by Banker's Order is much preferred.

Ordinary Members	£20	(Receive Bulletin only)
Full Members	£25	(Receive Bulletin and Journal)
Family Members	£30/£37.50	(Without/with Journal)
		Family members with children also receive the YHC Newsletter
Student Members	£18	(Receive Bulletin and Journal)
Institutional rates	£36	(Receive Bulletin and Journal)
YHC (Age 9-18):		
Basic Membership	£5	(Receive YHC Newsletter)
Bulletin Membership	£10	(Receive Newsletter and Bulletin)
Group Membership	-	For Schools, Youth Groups etc. Contact Education Officer (Address on inside of back cover) for details)

Correspondence, Membership applications, subscription renewals and purchase orders for publications should be addressed to the Secretary (address as at page top) EXCEPT for YHC matters. YHC Membership and renewal details are available from the Education Officer (address on inside of back cover). PLEASE INCLUDE A STAMP-ADDRESSED ENVELOPE WHEN WRITING TO THE SOCIETY.

The Society does not, as a body, hold itself responsible for statements made or opinions expressed in the Bulletin; nor does the Editorial necessarily express the official opinion of the Society.

The Bulletin is edited and produced by
Simon Townson and Neill Clark.

Contributions and correspondence arising from the Bulletin should be sent to:
Neill Clark, 15 Rivenhall End, Welwyn Garden City, Herts AL7 2PJ.

FRONT COVER

Dityophis vivax see article on page 7 by Dave Showler.

BRITISH HERPETOLOGICAL REMAINING SOCIETY MEETINGS FOR 1994

Meetings are usually held at Birkbeck College, Malet Street, London WC1 or at New Denham Community Centre, Oxford Road (A4020), New Denham, Uxbridge, unless otherwise stated.

New Denham – how to get there:

From Uxbridge Tube (Piccadilly/Metropolitan): turn right into High Street, continue on through shopping centre to Odeon Cinema. Follow right-bending High Street until Oxford Road is met, turn right (north) into Oxford Road and continue north, past Dog and Duck Pub, to Community Centre.

October 15th Autumn General Meeting (Birkbeck College, London) 1pm - 5 pm.
Speakers will be:

- (1) Chris Wild (*Nottingham*):
“The montane chameleons of the Cameroon Highlands”
- (2) Dr Jim Foster (*Durrell Institute of Conservation & Ecology*):
“Reptile conservation in south India”
- (3) Dr Angelo Lambiris (*Essex*):
“Southern African amphibians”

November 5th Captive Breeding Committee Captive Stock Sale
(New Denham). See separate sheet for details.

December 3rd Research Committee meeting (Birkbeck College, London)

PROVISIONAL MINUTES OF THE 47TH ANNUAL GENERAL MEETING OF THE BRITISH HERPETOLOGICAL SOCIETY, HELD AT 11.00AM, SATURDAY MARCH 19th 1994 IN BIRKBECK COLLEGE LONDON

The meeting was chaired by Dr T.J.C. Beebee. There were thirty two attendees and apologies for absence were received from N. Clark.

1. MINUTES OF THE PREVIOUS AGM (20.3.93).
These were accepted nem. con.

2. MATTERS ARISING.
There were none.

3. ANNUAL REPORT.

This was circulated prior to the meeting together with audited accounts and an inventory of capital assets.

(1) The reversal of the downward trend in Membership numbers over the previous two years was welcomed. Both adult and YHC Membership showed increases during 1993.

(2) The Society finances were healthy. The main account showed a profit of about £5,000 for 1993, and all the ancillary accounts were also very satisfactory with positive balances. Council had authorised the purchase of display boards, held by the Education Committee, and a computer software package ("Superbase") for recording amphibian and reptile distributions, held by the Conservation Committee, during 1993. A generous gift of £5,000 from a long-standing Member also allowed Council to purchase a set of computer hardware and software for desktop publishing of the Journal. This is an investment which should have a major impact on keeping publication costs low in future years. Council will keep Members informed about the Society's capital assets by publishing lists regularly in future; that for 1993 showed that these assets currently amount to more than £25,000.

(3) Meetings followed the usual pattern during 1993 except that, for the first time, the Society organised (with financial help from English Nature) the annual Herpetofauna Recorders meeting. Thanks were expressed to Mary Swan, Richard Griffiths and Monica Green for the work they put in to make this event successful. There was some discussion about how more Members might be attracted to the spring AGM and autumn general meetings, and Council will look into the possibility of organising one of these events outside London.

(4) Publications.

(i) *Journal*. Richard Griffiths was congratulated on his work with this publication, which attracted a record number of submissions in 1993. The delay between submission and publication had been reduced substantially since the Journal went quarterly, and although numbers of submissions from the UK had remained about constant, their proportion of the total had fallen as those from abroad increased.

(ii) *Bulletin*. The Chairman apologised on behalf of Council for delays with Bulletin publication during the first half of 1993. This was now back on course, and expected to remain so. Neill Clark had replaced John Pickett as one of the Bulletin coeditors during 1993. There was some discussion about how more articles on captive breeding might be attracted to the Bulletin, including a suggestion that the Captive Care leaflets could be published serially. It was pointed out that this aspect of the Bulletin's publication might have suffered from competition with the *Reptilian* magazine, which pays authors for their contributions.

(iii) *YHC Newsletter*. John Baker, the outgoing editor, was thanked for his work on this publication which is now highly prestigious. Helen Wraight was welcomed as the new editor.

(5) Library.

This is now up and running, and details of how Members can access it (by direct visits or a postal service) were published in the Bulletin during 1993. Dave Bird was thanked for his important work in resurrecting the BHS library.

(6) Committees.

All four of the Society's committees continued their specialist works during 1993. Jan Clemons mentioned that a full Conservation Committee report for 1993 will appear in a forthcoming Bulletin, and Colin Fitzsimmons gave a verbal report of some of the work of the Education Committee. Of particular note was the donation by BP of £4,500 towards a vehicle for the Education Officer, for which the Society is duly grateful.

(7) Miscellaneous.

(i) The Chairman reported with great regret the death of Professor Geoff Haslewood, an Honorary Member of the Society and previous Chairman of the Conservation Committee, during 1993. Professor Haslewood made a very substantial contribution to the Society over the past 10 years.

(ii) Problems with the disruption of Display & Trade Fairs. The Reptile Protection Trust has recently instigated disruptions of such events, including one held by the BHS during November 1993. There was discussion of what the most appropriate response to this problem should be; ideas included better defence of our activities, by producing codes of conduct and having veterinarians present during the events to enforce high standards, and taking the offence with publicity to highlight the value of, and need for, such events. Council will consider these and other options during 1994.

(iii) Links with other Societies. It was pointed out that BHS also has links with non-UK societies, especially SEH and SSAR, and it was agreed that this should also be mentioned in future annual reports.

4. ELECTION OF COUNCIL FOR 1994-5

The proposals listed in the Annual Report for a new Bulletin Coeditor, a new North-West Group regional representative, and three new Ordinary members were approved nem. con.

5. ANY OTHER BUSINESS

There was none.

The meeting closed at 11.50 am, and was followed by the "Herp Quiz" and two separate talks during the afternoon.

ACCOUNTS FOR HERPETOFAUNA RECORDERS MEETING '94

Costs:

Hire of Hall	£200.00
Stamps, stationary, telephone, badges circular/programme production	£516.31
Speakers' expenses	£191.64
Catering	£1,450.00
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TOTAL:	£2,357.95
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Income:

BHS Members 30 x £10	£300.00
Non-BHS Members 108 x £12	£1,296.00
JNCC (Including hire of Hall)	£1,011.95
	<hr/>
TOTAL:	£2,607.95
	<hr/>

NET PROFIT TO SOCIETY: APPROX £250

HERPETOLOGICAL JOURNAL REPORT 1993

The number of papers submitted to the *Herpetological Journal* in 1993 was forty-one, the highest in the Society's history. Rejection rate was 30%, only slightly lower than 1992. The time lag to publication averaged just under ten months, and this will fall further in the coming year. A generous donation by a member enabled the society to purchase a complete desktop publishing system, so that it is no longer reliant on the previously-used University facilities. This system has streamlined journal production considerably and reduced costs by over 50%. In addition, an associate editor, Jackie Jeffries, was appointed with outside funding to operate the publishing system and oversee journal production. We are also indebted to over sixty referees who were involved with reviewing manuscripts, and to Tracey Marshall who provided free secretarial support.

MEETING ANNOUNCEMENT

VENOMOUS SNAKES: ECOLOGY, EVOLUTION AND SNAKEBITE

This meeting will be held at the London Zoo on 27-28 April 1995, under the auspices of the Zoological Society of London. Areas covered will be "Ecology", "Evolution, biogeography and systematics", "Molecular evolution" and "Venom and snakebite". Proceedings will be published as part of the "Symposia of the Zoological Society of London Series". Persons interested in further details should contact:

Roger S. Thorpe (Venomous Snake Symposium)
School of Biological Sciences, Brambell Building
University College of North Wales
Bangor
Gwynedd LL57 2UW
Wales, UK

NORTH-WEST REGIONAL GROUP MEETINGS 1995

14 February	AGM	8.00 pm
18 April	Speaker	8.00 pm
13 June	Speaker	8.00 pm
5/6 August	Reptile Rally	10.30 pm
10 October	Speaker	8.00 pm
3 December	Christmas Social	8.00 pm

All meetings are held at the Wildfowl & Wetlands Centre, Martin Mere, Burscough, Lancs.

For details contact: P. Wisniewski. Tel: 0704 895119.

B. H. S.
SCOTTISH GROUP
SYMPOSIUM

Sunday, 23 October 1994

from 10.00 a.m. to 5.00 p.m.

in

**The Burrell Collection Lecture Theatre,
Pollock Park, Glasgow**

Speakers

Quentin Bloxam (Jersey Wildlife Preservation Trust) on Reptiles of Madagascar.

Ron Kivit (Netherlands) on breeding Boids in captivity.

Kevin Stevens (Darlington) on European Rat Snakes.

Bob & Val Davies (Wigan) on breeding Poison Arrow Frogs.

Cost £6.00 (concessions £4.00) to include tea/coffee.

**Tickets from A Darby (0786 824120), D Blatchford (0292 78262) or
A S Mair Ltd.**

Sponsored by A. S. Mair Ltd, West George Street, Glasgow.

A selection of books and equipment will be on sale.

REPTILES ON THE ISLAND OF SOCOTRA, REPUBLIC OF YEMEN

DAVE SHOWLER

125 Rupert Street, Norwich, Norfolk, NR2 2AX

INTRODUCTION

Socotra lies about 350km south of the coast of Yemen and 200km east of the Eastern Horn of Africa. It is the largest island (approx. 125km from east to west and 40km from north to south) in a small archipelago which includes a pair of very small islands known as 'The Brothers' to the south-west and the somewhat larger island of Abd-el Kuri, situated about midway between Socotra and the Somali mainland. The archipelago is under the administration of the recently formed Republic of Yemen.

Little scientific work has been carried out on Socotra and the other islands owing to their isolation and in more recent times because it was a politically difficult area to visit. The first real scientific work was not undertaken until the late 19th century when a series of mostly British, Austrian and German expeditions visited the islands. The most noteworthy natural history publications stemming from these visits were Balfour's botanical monograph (1888) and Forbes' (Ed.) Natural History of Socotra and Abd-el Kuri, which includes George Boulenger's account of the reptiles. It was not really until after the second world war with further sporadic visits, that more knowledge of the fauna and flora of Socotra and the other islands was gained.

In the spring of 1993, the Ornithological Society of the Middle East (OSME) mounted an expedition to survey the lesser known areas of former South Yemen and Socotra. The survey team visited Socotra for a period of eight days from 30th March to 6th April. The primary aims of this visit were to study the birds and in particular the four species endemic to the island, and to identify priority areas for conservation. During this short period I was able to make some observations of the Socotran reptile fauna.

GEOGRAPHY & CLIMATE

Socotra consists most of limestone overlying older metamorphic and igneous rock. The limestone forms an undulating plateau between elevations of about 300 to 900m, intersected by numerous wadis. The centre of the island is dominated by the high granitic peaks of the Hajhir Mountains which rise to 1500m. The southern coastal strip is occupied by a low-lying, semi-desert/dune area, the Nogid Plain. Access around the island is difficult with only a few unmetalled tracks suitable for vehicles and the upland areas being reachable only on foot.

Socotra has a cooler and more temperate climate compared with adjacent areas of Africa and Arabia although it is still generally hot and arid. It lies within the monsoon belt and violent south-westerly winds dominate the island from June to August. During December and January strong north and north-easterly winds occur. For the rest of the time it is usually hot and dry although the upland areas receive moisture in the form of nightly dew fall and there are a few permanently flowing streams. Climatic change and loss of vegetation cover over the past 2000 years has led to Socotra becoming increasingly arid and this may have serious implications for the native flora and fauna of the island in the long-term.



Plate 1. Adult *Pristurus socotranus*



Plate 2. Juvenile *Pristurus socotranus*



Plate 3. *Chameleo monachus*



Plate 4. Adult *Pristurus socotranus*

FLORA & FAUNA

Socotra has been isolated from the Afro-Arabian continent for about 10 million years and during this time a unique flora and fauna has evolved. It is perhaps best known to naturalists for the high degree of endemism exhibited by the flora of the island. About 750 species of flowering plants and ferns have been recorded of which 250 or so are endemics. The island also supports a high proportion of endemic invertebrates and reptiles, some of which are now extinct. Mammals on Socotra with the exception of a few species of bat, appear to, have been introduced by man. Human settlement on Socotra dates back about 2000 years and it is through the influence of man, particularly the grazing impact of introduced livestock (including camels, cattle, goats and asses) and predators that over this relatively short period of time most habitat degradation and extinctions have occurred.

REPTILES

In the account of Ptolmy's 2nd century AD voyage in the Arabian Sea 'Periplus of the Erythrean Sea' it was noted that rivers flowed on Socotra and at this time there were no mammals but numerous crocodiles, many snakes and large lizards. There are now no rivers on Socotra, no crocodiles, only three species of snake (excluding the Leptotyphlopidae) and no large lizards. It is likely that the larger reptiles underwent a decline, as is mirrored by many insular populations, with the introduction of mammalian predators (such as the Civet Cat *Viverra civetta*) and indeed the larger species may have been hunted directly by humans. In 1899 Forbes observed natives from the nearby island of Abd-el Kuri trading lizards (amongst other things) for rice and this may have been a more widespread practice in earlier times. It is likely that sub-fossil remains of the larger extinct reptiles are waiting to be discovered, perhaps amongst sediment in caves some of which are still occupied by troglodytes.

Of the thirteen genera or so of reptiles surviving on Socotra today, virtually nothing is known about their ecology or the effects of a continual slow degradation of habitat linked to overgrazing, collection of dead wood for fuel and the long-term increasing aridity of the island.

During the OSME visit to Socotra ten species of terrestrial reptile, eight of which are endemics (indicated below with an asterix), were observed:

****Chameleo monachus*** – One seen in woodland at Wadi Ayhaft, one of the best vegetated areas on the island. It maybe that this species is restricted to lush areas with good vegetation cover with at least some patches of soft substrate suitable for egg-laying. If this is the case it could be confined to a relatively few localities on the island and be particularly susceptible to any further loss of natural woodland. However the numerous small date palm plantations on the island might support this species and more field work is required to assess the status of *C. monachus*. (Plate 3).

Hemidactylus homoeolepis – Three observations from sea-level to 850m in a variety of habitats. One seen at dusk was remarkably well camouflaged against the bark of a dragon's blood tree *Dracaena cinnabari*. This gecko is also found in southern Yemen and Oman.

***Hemidactylus* sp.** – Observed twice on house walls in Hadibu after dark. Resembled *H. flaviviridis* but a positive identification was not made.

**Phyllodactylus trachyrhinus* – One observation after dark at about 200m. Spotlighted on granitic boulder at edge of dry, gravel bottomed wadi with small date palms and xerophytic shrubs nearby. Very little is known about this endemic gecko.

**Pristurus insignis* – Several individuals observed on rocks at two localities between 200 to 350m. It is also known to occur at higher altitudes and has generally been considered a highland species. This diurnal semaphore gecko is a large, long-legged, active foraging species. Two individuals were infested with trombiculid mite larvae, such mites are also frequently found on several mainland *Pristurus*. This is probably a reasonably common species in favoured localities.

**Pristurus socotranus* – A widespread and abundant species of rocky areas, observed up to an altitude of 850m. Mostly diurnal although a single animal was observed to be active after dark. More of a passive (sit and wait) forager compared to *P. insignis* and one individual was seen snapping up numerous small black ants. Several were noted to be hosting trombiculid mite larvae. (Plate 1, 2 & 4).

**Mesalina balfouri* – Observed at two localities, the first at just above sea-level on a gently undulating sand and gravel substrate with some low xerophytic vegetation, the second in markedly different habitat at 460m on rocks in a rough, cattle grazed pasture. Adults superficially resemble *Lacerta vivipera* whilst juveniles have a pair of broad cream-yellow, dorso-lateral stripes along each flank.

**Coluber socotrae* – One observed taking refuge under a boulder in a wadi bed with a few small pools of standing water and some scrub cover, at an altitude of 100m. The site just to the south of the Hadibu Plain is in the vicinity of the type locality. Other old records come from the lowlands of north and west Socotra and it is also known from Hakari islet, Semhah Island and The Brothers group.

**Dityophis vivax* – One observed at dusk at an altitude of 460m on the Hamadiroh Plateau. Despite being harmless (there are probably no poisonous snakes on Socotra) this small and inoffensive snake, and doubtless *C. socotrae*, is killed by natives as an old myth has led them to believe that snakes suckle their cattle and goats for milk and by doing so they poison the animals.

Cheloniidae – Numerous green *Chelonia mydas* and several hawksbill *Eretmochelys imbricata* turtles were seen offshore. Their nesting status on the island is unknown.

CONSERVATION

As part of the educational side of the OSME expedition, wildlife video recordings were made at various localities including Socotra. These are currently being edited and will be shown on Yemeni television to promote wildlife (including herpetofauna) and nature conservation in the region.

As yet there are no protected areas on Socotra although brief surveys by OSM and more exhaustive field work by Dr. A. Miller (Royal Botanic Gardens, Edinburgh) and colleagues, have identified priority areas for conservation including Wadi Ayhaft, the Hamadiroh Plateau and the Hajhir Mountains. The appropriate Yemeni authorities have been alerted to the conservation needs but international support for a long-term conservation programme is required.

ACKNOWLEDGEMENTS

Thanks to Dr. E.N. Arnold (British Museum, Natural History) for his assistance in identification of the reptiles and to Richard Porter (leader of the OSME expedition) for donating several rolls of film (when I'd run out) so that I was able to take photographs of them! Also thanks to Francine Stone and Dr. Omar al-Saghier for their valuable translation and negotiation skills without which we would have got nowhere on the island. Sincere thanks to everyone who helped in the organisation of the expedition, especially to Dr. Derek Harvey.

REFERENCES

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- Parker, H.W. (1949). The Snakes of Somaliland and the Sokotra Islands. *Zoologische Verhandelingen No. 6., Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands.*

MEMBERS' ADVERTISEMENTS

WANTED: 2 adult/subadult female *Bombina variegata* (any subspecies), and a clean copy of 'The Reproductive Biology of Amphibians' by Taylor & Guttman 1977. Contact Dave Snowden on York 0904-702985.

For sale: Captive bred baby Common Boas (*Constrictor constrictor imperator*), unrelated pairs available from litters born 25/5 and 19/6. Feeding records supplied. £75 each or £140 pair. For further details phone: Barry Pomfret (0908) 370112 (Milton Keynes).

- * **For sale:** Aug-Sept 94, Captive-bred *Testudo marginata* (D.O.E. Licence) and *Lacerta lepida*. Tel: Mike Hine, 0751 432631.
- * **For sale:** expected soon, Captive-bred Emerald Tree Boas and Boa Constrictors. Frozen rats, mice and pinkies available. Simon Townson, Tel: 081-531 1378.
- * Private researcher on chameleons would like to contact anyone involved in study/captive breeding. Cluny South, 81c Queens Drive, London N4 2BE. Tel: 081-809 4713.
- * **Urgently required:** female Pool Frog of Norfolk origin. This species is now considered likely to be native to UK and has not been seen at its one remaining Norfolk site for 2 years. Female frog required for breeding with male already in captivity for recovery programme. Some of the tadpoles may be used for "genetic fingerprinting". Charles A. Snell, 76 Birdbrooke Road, London SE3 9QP. Tel: 081-856 9852.

LETTERS TO THE EDITORS

FRESHLY DEAD OR PRESERVED SPECIMENS REQUIRED

Dear Sirs,

I wish to extend current research into comparative anatomy and morphology of African herpetofauna to include European reptiles and amphibian. These studies are aimed towards taxonomy and developing improved techniques in herpetological veterinary surgery.

For this purpose I shall need freshly dead or well-preserved (preferably in formalin) animals; at present any species available will be of value for establishing base-line material. Sources could include road casualties (even damaged specimens can be used for a number of purposes), and animals that have died in captivity (where feasible post-mortem findings could be given if required). With amphibians, larval stages reared from identified adults would also be of great value. It is not possible to purchase specimens, due to legislation, but I would be able to cover postage costs and provide preservatives if necessary.

Any BHS member who may be able to help over the next six months is asked to contact me at the address below, or to phone 0279 814543.

Yours sincerely,

Dr. Angelo Lambiris

2 Croasdaice Close, Stansted Mount Fitchet, Essex CM24 8DP

TRANSLOCATION OF COMMON FROG

Dear Sirs,

Regarding the BHSCC guidelines, "A policy on the translocation of the common frog", presented in the BHS Bulletin No. 46 Winter 1993, the advice given seemed (to me) to do little but contradict itself!

In one sentence the BHSCC said, "too many clumps (of spawn) will result in overcrowding and stunted growth of individual tadpoles". In the paragraph immediately following they recommended that, "excess spawn . . . (ie. too many clumps) . . . be left where it is as . . . carrying capacity and selection pressures will result in only the best adapted individuals surviving to metamorphosis". Which statement is true I wonder?

"Spawn Swaps" between apparently healthy populations, **must have** possible conservation value, as this action could **avert** "inbreeding problems" **before** they are being "experienced". How many of us are capable of recognising "early on" signs of "inbreeding problems" in frogs?

Can one be sure that a certain frog population is "isolated", or part of a "wildlife corridor system"? In a country/rural situation the isolated, or otherwise, status of a pond may be relatively easy to assess, but in built up/urban situations and often does not know if ones neighbours are growing roses or cabbages in their back gardens, let alone if they are harbouring populations of frogs!

To most people one frog looks much the same as another, that **might**, or **might not**, have just appeared from under ones doorstep, or just arrived from half-a-mile away!

How far do frogs travel when colonising new ponds? And do they do so purposefully, or accidentally?

I think the BHSCC "guidelines" raised queries rather than answered any; which is no bad thing!

Geoff Riley, BHS Ordinary Member, Manchester

P.S. It would be a good thing for the BHSCC to publish, in the Bulletin, photographs and/or details of New Zealand stonecrop (*Crassula helmsii*) and known frog diseases. This thought raises another question:- does our common toad (*Bufo bufo*) share our common frog diseases?

If anyone has suitable photos we will be pleased to publish them, ideally accompanied by an article (Ed.).

SPECIAL ANNOUNCEMENT

THE BRITISH DENDROBATID GROUP

INVITES YOU TO A CONFERENCE ON DENDROBATIDS

on Sunday the 20th November 1994,

venue the Forte Posthouse, Runcorn, Cheshire

Two lectures:

"The Dendrobatids of Panama and Costa Rica" by Bernd Pieper

"Dendrobatids of French Guiana, *D. azureus* in particular" by Erik Weavers

Frogs will be available to purchase

Conference should run from 11.00 am to 4.00 pm

Admission by ticket only, cost around £2.00

If you are interested please contact Steve Halfpenny in the next few weeks

37 Cronton Lane, Widnes, Cheshire. FAX: 0928 592141

THE GOOD OLD/BAD OLD DAYS

A survey of reptile and amphibian species traded during the period 1948-1957

LEIGH GILLETT

1 Fleets Lane, Tyler Hill, Canterbury, Kent CT2 9LY

INTRODUCTION

The commercial trade in reptiles and amphibians is undoubtedly an emotive subject for many people, with members of the British Herpetological Society inevitably holding a variety of differing opinions regarding it. There are those who themselves make a living out of the trade, and those who deplore its existence; those who have bought animals from time to time, and those who are distressed by the unsuitable conditions under which herptiles are so often kept in non-specialist pet-shops. These attitudes are by no means mutually exclusive, however, and the document *BHS Policy on Animals in Captivity Trade and Legislation*, goes some way towards defining a responsible common approach to the matter.

Whatever we may feel about the trade, though, it is likely that we will be, in some way, interested to know just which species are now, or have been in the past, offered for sale. Many of us have some informal knowledge of this, whether it be acquired by browsing through newspaper advertisements or by window-shopping at pet-shops, but few systematic surveys of the trade seem to come to our attention, and I feel that this area invites research. With this thought in mind, and with a number of dealers' lists covering the period from 1948 to 1957 having recently come into my possession, I have attempted to provide a summary relating to that decade. I hope that reading this may encourage others to consider doing similar work on later periods.

EXPLANATION

The information that has been collected from the dealers' lists is: Latin name; English name; source (where given); and price, given as £(pounds)/(shillings)/(pence). It may be helpful to younger readers to explain that, in pre-decimal British currency, one pound was equal to twenty shillings and one shilling was equal to twelve "old" pence. Although most prices refer to individual animals, I have also quoted those for larger quantities where possible. Most Latin and English names are as originally given by the dealers, although some spelling corrections and up-dating of names have been incorporated where this was deemed necessary to avoid confusion.

The species list will be published in three parts, spread over as many issues of the Bulletin. Part 1, below, covers lizards; part 2 will deal with snakes; and, finally, part 3 will look at chelonians and crocodylians, and amphibians.

SPECIES LIST

PART 1: LIZARDS

<i>Abroneia sp.</i>	Mexican green "zonure"	USA	25/-
<i>Acanthodactylus sp.</i>	Spiny-footed lizard	Algeria	
<i>Acanthodactylus shreiberi</i>	Fringe-toed lizard	Israel	17/-
<i>Agama atricollis</i>	Agama	Belgian Congo	
<i>Agama inermis</i>	Agama	Algeria	
<i>Agama stellio</i>	Hardun	Tel Aviv	10/-
<i>Ameiva ameiva</i>	Ameiva	Brazil, Surinam	£1/2/-
<i>Amphibolurus barbatus</i>	Bearded lizard		£5
<i>Anguis fragilis</i>	Slow worm	Belgium, Germany,	
		Italy	£3/15/- per 100
<i>Anolis carolinensis</i>	Green anolis	USA, Central America	8/6
<i>Calotes versicolor</i>	Indian tree lizard	India	£1/10/-
<i>Chalcides chalcides</i>	Sand skink, seps	Italy	5/-
<i>Chalcides chalcides striatus</i>	Sand skink, seps	Spain	6/-
<i>Chalcides trilineatus</i>	African three-lined skink	Africa	7/6
<i>Chameleo bitaeniatus ellioti</i>	Kenyan chameleon	Captive-bred	£1/10/-
<i>Chameleo dilepis</i>	Chameleon	Belgian Congo	
<i>Chlamydosaurus kingi</i>	Australian frilled lizard	Australia	£16
<i>Cnemidophorus tigris</i>	Whiptail lizard	USA	£1/8/-
<i>Cordylus cordylus</i>	Reddish-brown zonure	South Africa	£1/5/-
<i>Cordylus cordylus niger</i>	Black zonure	South Africa	£1/5/-
<i>Cordylus cataphractus</i>	Zonure	South Africa	£1/12/-
<i>Cordylus polyzonus</i>	Zonure	South Africa	£1/12/-
<i>Crotaphytus collaris</i>	Collared lizard	USA	£1
<i>Crotaphytus wislizenii</i>	Leopard lizard	USA	£1/19/-
<i>Diploglossus tenuifasciatus</i>	Lizard	Brazil	£1/19/-
<i>Dipsosaurus dorsalis</i>	Desert iguana	USA	£3
<i>Egernia cunninghami</i>	Cunningham's skink	Australia	£4
<i>Egernia major</i>	Great skink		£5
<i>Enyosaurus sp.</i>	Mexican desert iguana	Mexico	£3/10/-
<i>Eumeces fasciatus</i>	5-lined skink	USA	£1/10/-
<i>Eumeces gilberti</i>			
<i>rubricaudatus</i>	Pink-tailed skink		£1/10/-
<i>Eumeces obsoletus</i>	Bronze skink		£1
<i>Gecko gecko</i>	Great house gecko	Southern China	£2/10/-
<i>Gerrhonotus infernalis</i>			
<i>infernalis</i>	Alligator lizard	Central America	£2/10/-
<i>Gerrhonotus multicaarinatus</i>			
<i>webii</i>	Alligator lizard		£2
<i>Gherosaurus nigrolineata</i>	Lizard	Belgian Congo	
<i>Hemidactylus flaviviridis</i>	Indian gecko	India	15/-
<i>Hemidactylus turcicus</i>	Turkish gecko	Sardinia, Yugoslavia	10/-
<i>Iguana iguana</i>	Common iguana	Surinam	£1/12/-
<i>Lacerta agilis agilis</i>	Sand lizard	Belgium	2/6
<i>Lacerta bedriagae sardoa</i>	Bedriaga's rock lizard	Sardinia	
<i>Lacerta lepida</i>	Eyed lizard	France, Spain	11/-
<i>Lacerta schreiberi</i>	Schreiber's green lizard	Spain	16/-

<i>Lacerta viridis</i>	Green lizard	France, Italy	£5/12/- per 100
<i>Lacerta viridis major</i>	Giant green lizard		£1/5/-
<i>Lacerta vivipara</i>	Common lizard	Belgium	2/6
<i>Mabuya mucullabris</i>	Skink	Belgian Congo	
<i>Mabuya trivittata</i>	Striped skink		£1/10/-
<i>Microsaura pumila</i>	Dwarf chameleon	South Africa	£1/10/-
<i>Ophisarus apodus</i>	Scheltopusik	Yugoslavia	15/-
<i>Ophisaurus ventralis</i>	American glass snake	USA	20/-
<i>Pachydactylus ocellatus</i>	Eyed gecko		10/-
<i>Phrynosoma cornutum</i>	Texas horned lizard	Texas	15/-
<i>Phyllodactylus marmoratus</i>	Marbled gecko		10/-
<i>Physignathus lesueurii</i>	Lesueur's water dragon	North-east Australia	£5
<i>Podarcis bocagei</i>	Spanish wall lizard	Spain	6/-
<i>Podarcis lilfordi balearica</i>	Lilford's wall lizard	Spain	11/6
<i>Podarcis lilfordi lilfordi</i>	Black wall lizard	Spain	11/6
<i>Podarcis melisellensis</i>	Dalmation wall lizard	Yugoslavia	3/6
<i>Podarcis muralis</i>	Wall lizard	Italy, Sardinia	£2/19/- per 100
<i>Podarcis muralis</i> <i>brueggemanni</i>	Wall lizard	Italy	
<i>Podarcis muralis muralis</i>	Wall lizard	Belgium	
<i>Podarcis muralis</i> <i>quadrilineata</i>	Wall lizard	Sardinia	
<i>Podarcis sicula campestris</i>	Ruin lizard	Italy	3/6
<i>Podarcis taurica</i>	Field lizard	Hungary	5/6
<i>Podarcis tiliguerta</i>	Tyrrhenian Wall Lizard	Sardinia	
<i>Polychrus marmoratus</i>	Tree-lizard	Brazil	£1/19/-
<i>Psammodromus algirus</i>	Algerian sand lizard	Spain	6/-
<i>Psammodromus hispanicus</i>	Desert shrieking lizard	Spain	2/6
<i>Sauromalus obesus</i>	Chuckwalla		£2/10/-
<i>Sceloporus olivaceus</i>	Common fence swift	Central America	15/-
<i>Sceloporus poinsettii</i>	Collared swift	Central America	5/-
<i>Sceloporus undulatus</i> <i>hyacinthinus</i>	Fence lizard	Eastern USA	£1
<i>Sceloporus v. marmoratus</i>	Rose-bellied lizard	Texas	15/-
<i>Scelotes bipes</i>	Silver sand lizard		£1/10/-
<i>Tarentola mauretana</i>	Moorish gecko	Algeria, Sardinia	
<i>Tetradactylus seps</i>	Short-legged plated lizard		£1/10/-
<i>Tiliqua scincoides</i>	Blue-tongued skink		£4
<i>Trachydosaurus rugosus</i>	Stump-tailed skink		£5
<i>Tropidurus semitaeniatus</i>	Lizard	Brazil	£1/8/-
<i>Tropidurus torquatus</i>	Lizard	Brazil	£1/8/-
<i>Tupinambis nigropunctatus</i>	Tegu lizard	Surinam	£4
<i>Uromastix acanthinurus</i>	Date-palm lizard	Algeria	
<i>Uromastix hardwickii</i>	Hardwick's mastigure	India	£1/19/-
<i>Varanus indicus</i>	Indian monitor	India	£5
<i>Varanus niloticus</i>	Nile monitor	Africa	£5
<i>Varanus varius</i>	Lace monitor		£10
<i>Xantusia henshawi</i>	Spotted night lizard		15/-

To Be Continued

A CONTRIBUTION TO THE HERPETOLOGY OF SINAI

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The distribution and taxonomic status of a considerable number of reptile species occurring in Sinai is not fully known yet, despite the extensive zoological coverage the peninsula has received over a long period of time. This is partly because of the rarity of some of the taxa concerned. On the other hand, large areas of less complex habitats have been marginally explored (particularly in northern and central Sinai), and the existing faunistic (herpetological) knowledge of these regions has been largely taken for granted. Moreover, much of the available knowledge is mostly based on museum materials, while very little is known about the ecology and behaviour of the species and communities involved.

The discovery of *Acanthodactylus longipes* in North Sinai, was largely due to close field observations of animals in the wild, which revealed distinctive characters and behaviour, otherwise undetectable in museum specimens. Similarly, differences between the sibling species *Tropicolotes steudneri* and *T. nattereri* are particularly pronounced when the species are examined from an ecological and behavioural perspective. Most of the notes presented below are based on casual, subjective and short term observations. There is a need and great scope for more systematic ecological work, addressing the reptile communities of different habitats equally. This will not only provide basic (none existing) ecological knowledge of the region's herpetofauna, but probably clarify some faunistic questions as well.

Below I present a summary of recent observations made of species rarely or never recorded from Sinai, and of some which have debatable taxonomic status.

Cyrtodactylus scaber (Heyden 1827)

The distribution of *C. scaber* in Egypt is poorly known, and its contemporary status in the country has been doubted by some. Since the type was collected from El Tor, South Sinai, this species has been reported from Sinai only once by Werner (1973), who found it at three localities on the eastern shores of the Gulf of Suez. Furthermore, the species has been reported from only two localities outside Sinai (in Egypt), at Quseir (Anderson 1898) and the Suez Canal zone (British Museum [Natural History] catalogues). Flower (1933) and Marx (1968) never encountered the species in the country.

The author found this species at two localities in South Sinai, at Abu Zenima and most recently Sharm El Sheikh. A dense population was found at the latter locality in September 1993 inhabiting new tourist developments, alongside *Hemidactylus turcicus* and *Ptyodactylus hasselquistii*. Sizeable populations have also been found at Ras Gharib and Hurgada, two large urban settlements on the western side of the Gulf of Suez and the Red Sea, respectively. The origin of the population recently found at Sharm El Sheikh is not known, possibly introduced by man. The species has not, as yet, been reported from elsewhere in the Gulf of Aqaba, but will surely soon find its way to other suitable localities in the region. *Cyrtodactylus scaber* is a widespread inhabitant of coastal urban developments in the Arabian Gulf area, where it is very fast in colonising new suitable 'habitats'.



A



B

Plate 1. Adult female *Tropicolotes nattereri* from Wadi Feiran, South Sinai.

A: Photographed during day time. Note barred distal portion of tail.

B: Same animal photographed at night. Note white unbarred distal portion of tail.

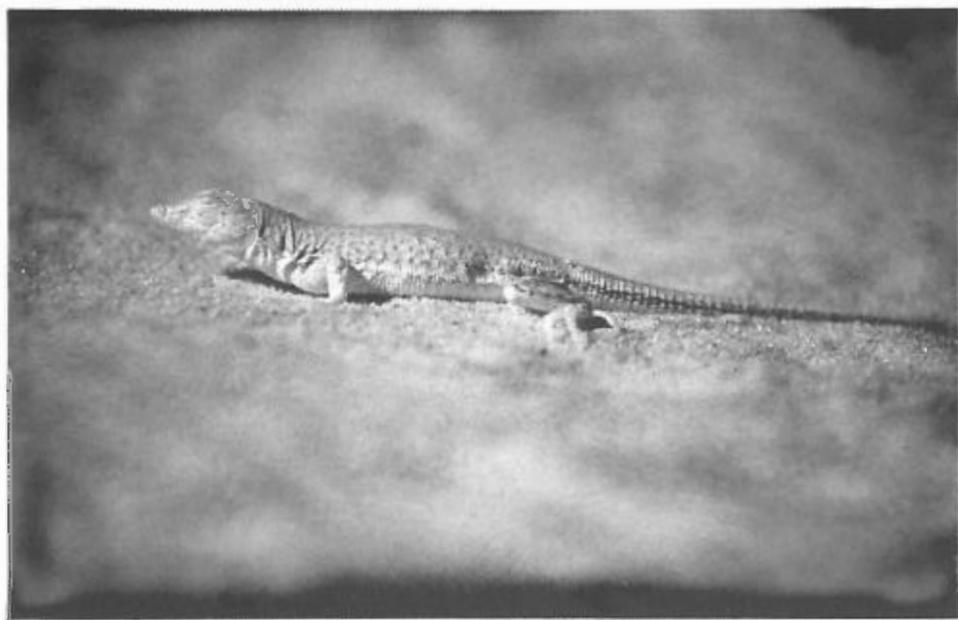


Plate 2. Adult female *Acanthodactylus longipes* from Negila, North Sinai.
Note dark lateral line on tail.

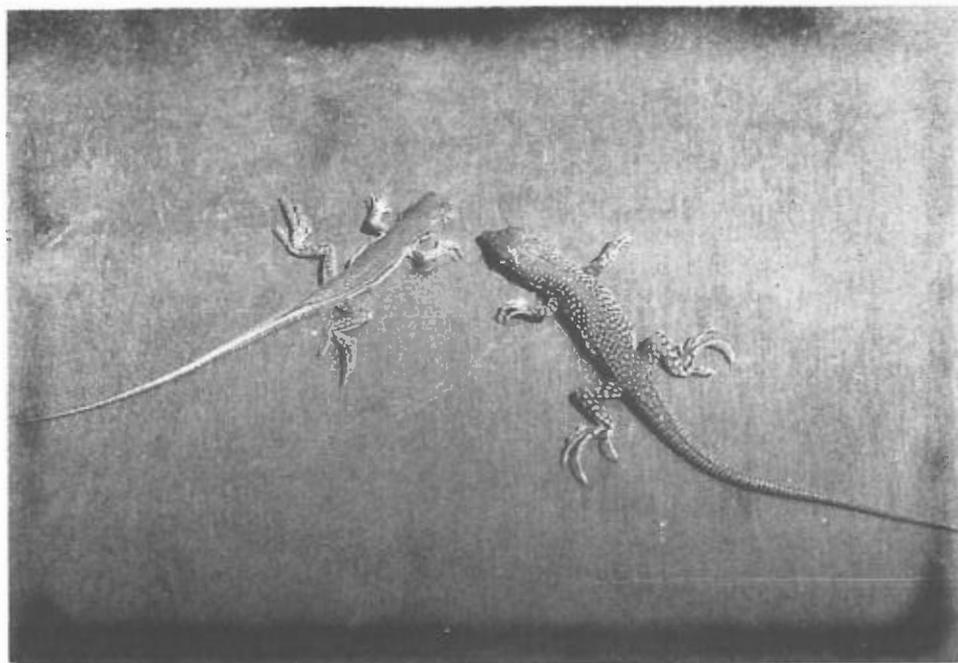


Plate 3. Juvenile *Acanthodactylus longipes* (left) and *A. scutellatus*.
Both from a locality 35 km south west of El Arish, North Sinai.



Plate 4. *Coluber sinai* in defensive posture. From a small wadi about 20 km north west of Taba, South Sinai (photograph by Coney Pearson)



Plate 5. *Rhynchocalamus melanocephalus* from a locality 20 km north east of St. Katherine, South Sinai.

Tropicolotes nattereri Steindachner 1901

Five examples of this species were collected by the author in June 1993 from Wadi Feiran, 20km north of St. Katherine (at an elevation of about 1500m) and along the road between the latter locality and Dahab. All the specimens found closely conform with the type description of *T. nattereri*. Since the types were collected from Nawibi (=Nuweiba) and Bir El Mashiya from opposite sides of the Gulf of Aqaba, the species has been reported only twice in the literature from Libya (Schnurrenberger 1962) and Gebel Attaqa near Suez (Werner 1983); however, the validity of these reports can not be verified hitherto.

The taxonomic status of *T. nattereri* has been questioned by many, primarily because of its superficial similarity to *T. steudneri* (Peters 1869). Both Flower (1933) and Loveridge (1949) doubted the validity of the species, and Arnold (1977, 1986) placed it in synonymy with *T. steudneri*. On the other hand, Pasture (1960) believed the species to be valid, and Werner (1982, 1983 and pers. comm. 1993) suggests that this is likely to be true. Marx (1968) and Leviton & Anderson (1972) list the species with no specific comment. Ecological and morphological observations made recently by the author, support the hypothesis that *T. nattereri* is a good species, with a range encompassing South Sinai, southern Israel (probably parts of Jordan), and much of north western Arabia.

Tropicolotes nattereri differs consistently from *T. steudneri* in being overall distinctly more slender, with much longer limbs, distinct neck, larger more pointed dorsal and ventral scales, and possesses notably larger eyes and a striking dorsal pattern of 4-5 dark and light bands. Furthermore, and contrary to all previous works dealing with the taxonomy of *Tropicolotes* (e.g. Minton *et al* [1970] and Leviton & Anderson [1972]), it diagnostically differs from *T. steudneri* in possessing unicarinate subdigital lamellae (*T. steudneri* has distinctive tricarinate subdigital lamellae). In captivity the long slender tail in all five specimens altered its colour, being barred during the day and plain white during the night (see Plate 1); a feature never observed in *T. steudneri*. Further differences are noted in the ecology and behaviour of the two species. While *T. steudneri* is a ground dwelling species found largely in sandy habitats, *T. nattereri* inhabits rocky terrain where it appears to regularly climb on low rocks and into vegetation. The latter species is generally far more active and agile than the former, moving in short rapid dashes with sudden stops. It traverses between rocks and bushes by means of long leaps (not unlike some *Pristurus* spp.). *T. steudneri* on the other hand moves slowly and seldomly makes very short hops. The two species also differ in the way they hold their tails when walking. *T. steudneri* waves its fairly thick tail in a slow serpentine motion; while *T. nattereri* holds its tail in a stiff strait posture, often curved upwards, but waves its tail rapidly when threatened, a behaviour observed in *T. scorteccei* in Dhofar, Oman (Arnold 1980).

Preliminary examination of specimens of *T. steudneri* from northern Arabia and Israel housed in the British Museum (Natural History) and the California Academy of Sciences, suggests that these should all be referred to *T. nattereri*. In Sinai *T. steudneri* probably only exists in the north extending east as far as the Negev along with other Saharan herpetofauna. Werner's (1973) records of "*T. steudneri*" from South Sinai most probably refer to *T. nattereri*. The two species are likely to be largely parapatric.

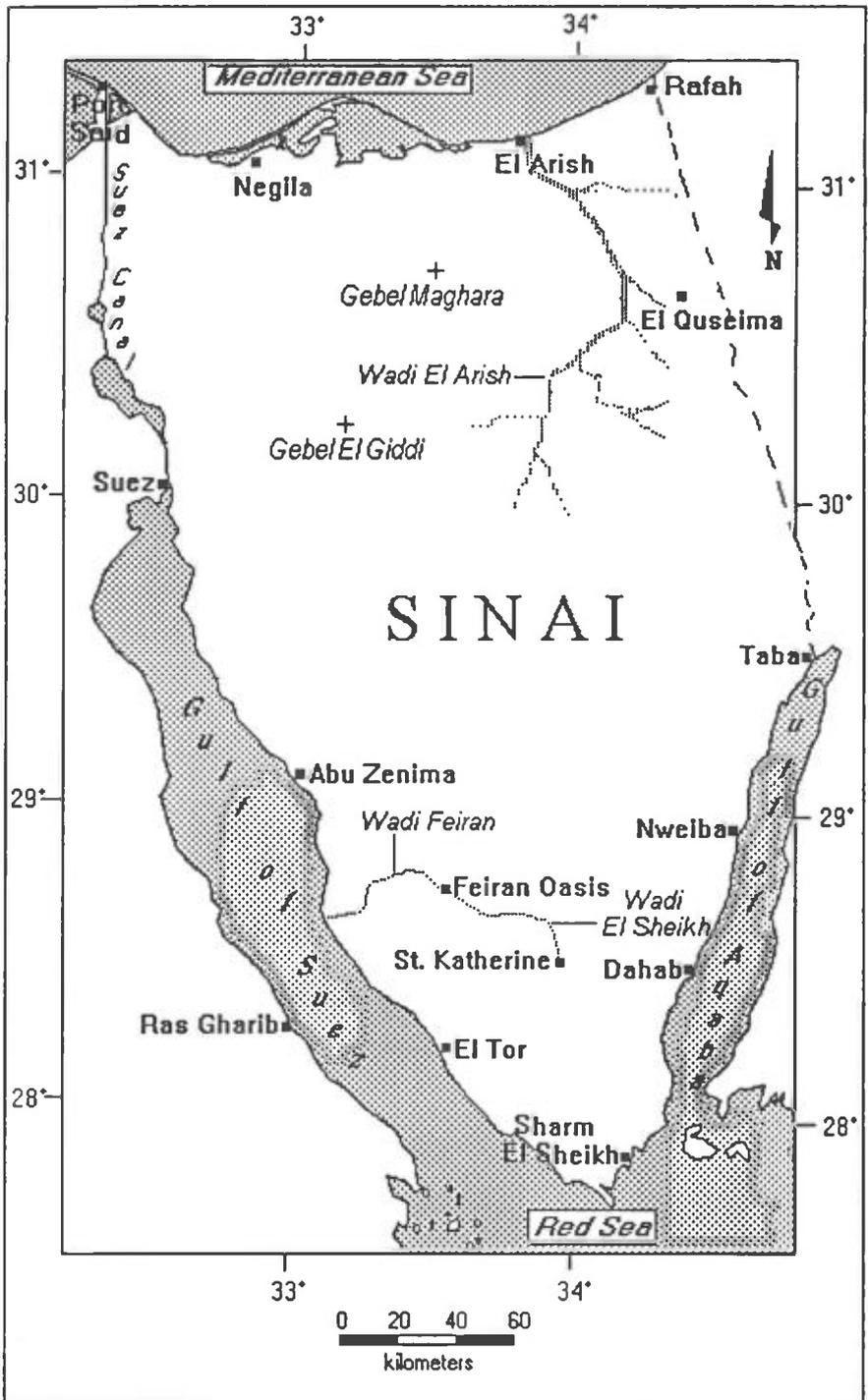


Figure 1. Map of Sinai showing main localities mentioned in the text.

Acanthodactylus longipes Boulenger 1918

This species has recently been found widely distributed in the sands of North Sinai, where it has been long overlooked, because of its close similarity to *A. scutellatus* (Audouin 1829). It is in fact a very prominent component of the local herpetofauna. *Acanthodactylus longipes* was described by Boulenger in 1918 as a variety of *A. scutellatus*, but first recognised as a full species by Bons & Girot (1962). Both Salvador (1982) and Arnold (1983) acknowledged the validity of this species. In North Sinai *A. longipes* was found in extensive sympatry with *A. scutellatus*, where the latter occupies areas of firm compacted sand and gravel plains, while the former occupies softer sand and dunes. Both Scortecci (1946) and Mellado (1993) noted similar habitat differentiation between the two species in Libya and Morocco respectively.

In Sinai, *A. longipes* can be fairly easily distinguished from *A. scutellatus*, by its smaller size, more slender build, much finer granular dorsal scales, general plain sandy colour, and the presence of enlarged keeled and pointed scales on the dorsal surface of the tibia and forelimb. Juvenile *A. longipes* have bright lemon yellow tails, while juvenile *A. scutellatus* have blue tails.

The finding of *A. longipes* in northern Sinai represents an extension in range of nearly 2000 km from the closest localities where the species has previously been recorded in northern Chad and central Libya (Arnold 1983). The species has also been found further west in northern Egypt (also in wide sympatry with *A. scutellatus*), near Suez, Giza, Fayoum, Wadi El Natrun and Siwa Oasis (based on Egyptian material in the British Museum [Natural History]). It is also probable that the species extends further east to the sands of the western Negev in Israel, where many Saharan faunal elements have their eastern limits. The apparent large gap in distribution between northern Egypt and central Libya and northern Chad, is probably an artefact of herpetological coverage and collection effort, rather than a true discontinuity in distribution. There are, however, some consistent morphological differences between Egyptian *A. longipes* and those from further west in the Sahara, which might grant sub-specific treatment. Further details on identification, ecology, and taxonomy of *A. longipes* in Egypt will be presented elsewhere.

Arnold (1983) speculated that areas of sympatry amongst species of the *A. scutellatus* group are uncommon, because of the stringent nature of the environments which these lizards usually inhabit. The evident extensive sympatry of *A. scutellatus* and *A. longipes* in Egypt indicates that even the most desolate of deserts might in fact be more complex than they appear. Minute differences in habitat preference (mainly ground softness and substrate mechanical composition) facilitate the coexistence of these two very similar species.

Coluber sinai (Schmidt and Marx 1956)

Since its description in 1956 this small handsome snake has been found or reported in literature only a few times. Its rarity and similarity to the Arabian *C. elegantissimus* (Günther 1878) has led some local workers to question the existence of the species altogether. Recently Werner & Sivan (1991) reported on the occurrence of the species in southern Israel and provided further evidence of its specific status, most significantly the sympatric occurrence with *C. elegantissimus*.

Four further records of this snake were made in South Sinai during May and June 1993. On 14 May two examples were found less than one kilometre to the east of the centre of Feiran Oasis in the general vicinity of the type locality. They were both found freshly dead; one killed by traffic on the main road, the other was found

on the soil surface less than 5 metres away, also dead but by no apparent cause. Both animals were found only minutes after their death. They were encountered about 30 minutes after sunset, indicating crepuscular activity by the species. A further example was found on the first of June only 100 metres further east from where the earlier two were found. It was a completely desiccated traffic casualty. The fourth animal was found and photographed by Mrs Coney Pearson in a small wadi 20km north west of Taba on 6 June. All animals conform with the type description of *C. sinai*, and with further morphological data provided by Marx (1968) and Werner and Sivan (1991). They all had a reddish mid dorsal stripe.

Coluber sinai is known to local bedouins inhabiting the St. Katherine area, who call it "Abu Merira" ("Dr. Ahmed" local pers. comm.); in reference to the similarity between the colour pattern of *C. sinai* and the traditional Arab head dress, used widely by the native population. Zein El Din (1952) used this same Arabic name for *C. elegantissimus*, but in fact he was referring to a specimen of *C. sinai* collected from Sinai by General Negumi Pasha (housed in the Giza Zoological Museum) and erroneously identified as the former species.

***Macroprotodon cucullatus* (Geoffroy 1827)**

The National Museum of Natural History (Washington D.C.) holds a single specimen of this species (USNM 134859), collected at El Quseima, on 18 October 1952 by Robert E. Kuntz and G.M. Malakatis. This is the only known record of the species from Sinai. Both Flower (1933) and Werner (1982) excluded this snake from the herpetofauna of Sinai, however the latter author predicted its occurrence in the peninsula. *M. cucullatus* is only known in Egypt from the Mediterranean littoral west of the Nile. Its apparent absence from most of Sinai, along with *Eryx jaculus*, *Malpolon monspessulanus* and *Acanthodactylus pardalis* (all of which occur east and west of Sinai), is probably due to the lack of suitable habitats.

***Rhynchocalamus melanocephalus* (Jan 1862)**

One specimen was found on 3 June 1993 about 20 km north east of St. Katherine, South Sinai. The specimen was found at night moving slowly on an open gravel plain with scant cover of *Artemisia inculta* bordered by low sandstone boulders.

The status of this species in Egypt has been rather unclear. While Anderson (1898) lists a record from Cairo and stated that it occurred in Sinai (with no further detail), Flower (1933) doubted the Cairo record and its occurrence in Sinai. Marx (1968) omitted the species from his checklist of Egypt's reptiles and amphibians. The only recent indication of the occurrence of the species in Sinai is by Werner (1982), who referred to a recent record but provided no collection details. But apparently the Hebrew University Museum holds three specimens of the species from the vicinity of the St. Katherine Monastery (N. Sivan pers. comm.).

***Telescopus dhara dhara* (Forskål 1775)**

This species has been recorded from three localities in Sinai, Wadi Feiran (Flower 1933), Gebel Maghara and Gebel El Giddi (Zinner 1974). Two further specimens (road kills) were collected from Wadi El Sheikh, just north of St. Katherine, at an altitude of about 1500m, on the first of June 1993.

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The following article has been reprinted from *New Scientist*, 9 July 1994

POISON FROGS EAT POISON PREY

Some of the most potent toxins known are found in the skins of frogs from Central and South America. This is why indigenous peoples use them to make poison arrows. Everyone assumed that these so-called "arrow-poison frogs" made the toxins themselves. Now, however, it looks as if they obtain at least some of them from their food.

Arrow-poison frogs are a group of small, brightly coloured amphibians that live on the forest floor. When they are threatened, glands in their skin exude secretions that are so toxic that a tiny smear can kill a horse. Oddly, however, frogs kept in zoos soon lose their toxicity.

John Daly of the National Institutes of Health in Bethesda, Maryland, noticed that some components of the frogs' chemical cocktails either occur in insects in leaf litter or else have chemical precursors that do. He wondered whether the toxins, many of which were alkaloids, had a dietary component.

Daly and his team tested the idea in Panama, the home of *Dendrobates auratus*, a very well-studied arrow-poison frog. The researchers caught *D. auratus* tadpoles, raised them to adulthood in indoor enclosures, then divided them into two separate test groups. One group were fed fruit flies, which contain no toxic alkaloids, while the other was raised on arthropods collected from the leaf litter of the surrounding forest.

After seven months, Daly and his team extracted alkaloids from the frogs' skins. When they analysed them, they found that frogs raised on fruit flies had virtually no alkaloids, just like zoo specimens. By contrast, frogs raised on leaf-litter had substantial amounts of several alkaloids (*Journal of Chemical Ecology*, vol 20, p 943).

Of the 21 alkaloids identified by Daly's team, 18 were shared with adult *D. auratus* caught in the Panamanian forest. The alkaloid precocinelline was also found in beetles of the forest floor, pyrrolizidine in ants, while several other alkaloids were found in millipedes. Daly's results offer the intriguing possibility that these frogs may be preferentially choosing toxic insects as prey.

The group identified several chemicals in invertebrates of the leaf litter which may be precursors for some of the alkaloids secreted by the frogs. It also found that the frog skins contain other toxins that are unique to them, so they must also be synthesising their own poisons.

Adrian Barnett

OBITUARY FOR DAVE LESTER

Dave Lester's tragic death has left a black hole in the herpetological fraternity. The West Midlands will feel the loss most keenly as this was the base of his unique business, the Serpentarium, in Walsall. Dave's herpetological interests and influence however spread throughout this country and to foreign countries too, particularly the U.S.A. The ripple effects of his death will be felt over an enormous area of our hobby.

You get to know people by spending time with them. Dave was easy to spend time with, he never wanted to sleep when with other reptile enthusiasts. Many is the time when I've gone home in daylight after a night socialising with him and other colleagues. Although I did business with Dave, it is the time I spent talking with him about the hobby, and anything else which intrigued us, that I hold most pleasure from. Dave once told me that two of his greatest pleasures in life were breeding reptiles and making money. He wasn't sure which he enjoyed most, but he certainly successfully combined both in his business, and therefore achieved a quality of life which few of us would be able to match.

We will all hold individual memories of Dave. I guess mine will be those times that I spent with him socially, particularly when abroad, on herpetological excuses for having a good time, in groups of like-minded enthusiasts of all types and ages. Like the time in a hotel room in Amsterdam, not far from Central Station, where he proceeded to amaze all those present by producing the most fabulous collection of Madagascan Tree Boas (*Sanzinia madagascariensis*) from a range of innocuous looking cloth bags. Testimony to his ability to do great deals and yet thrill us all with species and specimens that we would probably never have come across without him.

Dave's great influence on herpetoculture is perhaps best demonstrated by the numerous new products that he developed and introduced to the hobby. His range of Microclimate thermostats heralded a new age of reptile and amphibian care, taking the hobby from a poor relation of fish keeping into a new era that is today probably one of the fastest growth aspects of the Pet Trade. It was Dave's previous expertise in aquarium technology coupled with his interest and skills in electronics that enabled him to develop, and bring to the market, these invaluable products. In the sense that so many of us use these products, and benefit from husbandry techniques that Dave developed, something of him will always remain with us. This should bring us all comfort, for in this way Dave has made his unique mark on the hobby and will not be forgotten.

Jon' Coote

REGURGITATION OF HAIR PELLETS IN WHITE LIPPED PYTHONS - *Liasis albertisii*

DAVID BLATCHFORD & STEPHEN WISEMAN

Regular regurgitation of undigested rodent hair has been recorded in two groups of unrelated, captive bred White lipped pythons (*Liasis albertisii*). This is not the consequence of a parasite burden and occurs approximately monthly in animals being fed to appetite with white laboratory rodents.

The pellets have a distinctive appearance being tapered at either end (see Plate 1) and are composed entirely of hair. They are virtually free of odour unlike the foul-smelling vomitus associated with, for example, protozoan infections.

The uniform, spindle shape and freedom from odour led us to speculate that they are formed, or stored, within an area of the digestive tract not associated with the gastric secretions. But the location of such a storage area or diverticulum was not found in a dissection. However the thick walled stomach has many folds and the shape of the empty stomach resembles that of the pellets (see Plate 2). We suggest that the hair is collected and retained within a fold of the stomach after the bulk of the meal has been digested and passed through the pyloric sphincter.



Plate 1. - Regurgitated pellet from *Liasis albertisii*



Plate 2. – Folds in the stomach wall

That mammals are the normal prey of this species in the wild was confirmed by McDowell (1979); in one specimen he reported finding rodent hair “within the intestine.”

Regurgitation of the pellets has been witnessed. This curious behaviour has not been observed in other *Liasis* species.

Discussion with other herpetologists of this phenonema reveals that it had not been noticed in other collections holding this species.

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