

veteran collector, Mr. Horst Bachran from Okahandja. By picking up and preserving a dead snake run over on the tarred road on farm Klein Okapuka between Windhoek and Okahandja he provided an indication of the existence of a third species namely the black file-snake (*M. nyassae*) within the limits of central South West Africa/Namibia. However, since the known range of this species lies in eastern tropical Africa ranging from Kenya and Burundi southwards to the Transvaal and Durban in Natal with the nearest documented record (FitzSimons, 1962) about 1 200 km distant in the NW Transvaal, the validity of this record is rather suspect.

Having been found on the main transport route through South West Africa, the possibility of it being an escapee from a vehicle after it had been introduced to the territory is a possibility which must be kept in mind. Nevertheless, it may just as well be a perfectly reliable authentic record which, however, needs confirmation by additional material. For this reason an appeal is made to the public to retain any specimens which might fit the general descriptions provided below and to donate them to a natural history research museum.

As a result of this remarkable find the new records accumulated since FitzSimons' (1962) publication were checked for the whole of southern Africa. In addition to the records in the Transvaal Museum and the other institutions mentioned above the greatest number of new records are based on material in the collection of the National Museum of Zimbabwe. The latter collection actually has a record of *M. nyassae* from the Caprivi Strip as well as two from north-eastern Botswana which, although they represent range extensions on previous records, are within acceptable ecological areas.

At a time when the initial draft for this paper had been typed, a further specimen of *Mehelya nyassae* representing a further range extension, this time into the southern Kalahari of south-western Botswana, was presented to this museum by Mr. John Lougher, a geologist from Johannesburg. Although this specimen appears to bridge the gap between the accepted eastern range and the new record from central Namibia, it is also from an ecologically unusual area and therefore considered worthwhile reporting on both these specimens in detail.

2 MATERIAL AND METHODS

All published records such as Mertens (1955, 1971), Pienaar (1978) and the type of *M. vernayi* (Bogert, 1940), as well as the records in the National Museum of Zimbabwe as supplied by Dr. D. G. Broadley and the new acquisition of the Alexander Koenig Museum, Bonn (P. van der Elzden, pers. comm.) were accepted as correct. The material in the Transvaal Museum, Pretoria; the State Museum, Windhoek, and the South African Museum, was personally examined.

The following abbreviations are used for institutional or collection prefixes to indicate the origin of new locality records. The records listed by FitzSimons (1962), although shown on the distribution maps, are not listed again in this publication. All loci are indicated by their relative quarter-degree grid reference.

AMNH	= American Museum of Natural History, New York
JPT	= J. P. Tello collection, Gorongosa. Records supplied by Broadley. Not seen.
KNP	= Kruger National Park (Pienaar, 1978)
NMSR	= National Museums of Southern Rhodesia
QM	= Queen Victoria Museum, Salisbury
SAM	= South African Museum, Cape Town
SMF	= Senckenberg Museum, Frankfurt on Main
SMW	= State Museum, Windhoek
TM	= Transvaal Museum, Pretoria
UM	= Umtali Museum

The NMSR, QM and UM collections, although quoted individually by Broadley are now joined in the biological section of the National Museum of Zimbabwe at Bulawayo.

3 SYSTEMATIC ACCOUNT

3.1 Generic description and key

Head very distinct from neck and flattened above, snout strongly depressed and with a broadly rounded edge, eye small to medium with a vertically elliptic pupil, nostrils noticeably large.

Body subtriangular in sections with strongly keeled, rough but widely spaced body scales, exposing the skin in between. The mid-dorsal scale row consists of enlarged scales with two parallel keels which form the middle "edge of the file". The ventrals show some extent of lateral keeling, while the paired subcaudals of the moderately long tail are smooth. All the known species appear to be oviparous.

Key to the *Mehelya* species in southern Africa (after FitzSimons, 1962)

1. a) Scales in 19 rows at mid-body; 3 upper labials enter the orbit; ventrals over 250 *vernayi*
- b) Scales in 15, rarely 17, rows at mid-body; 2 upper labials enter the orbit; ventrals less than 230 2
2. a) Secondary keels (on either side of main keel) on body scales all strongly developed; ventrals 195–224; subcaudals 44–58; a pale vertebral stripe present *capensis capensis*
- b) Secondary keels (on either side of main keel) reduced to two short ones near the tip of each body scale; ventrals 165–184; subcaudals 51–77; no pale vertebral stripe present *nyassae*

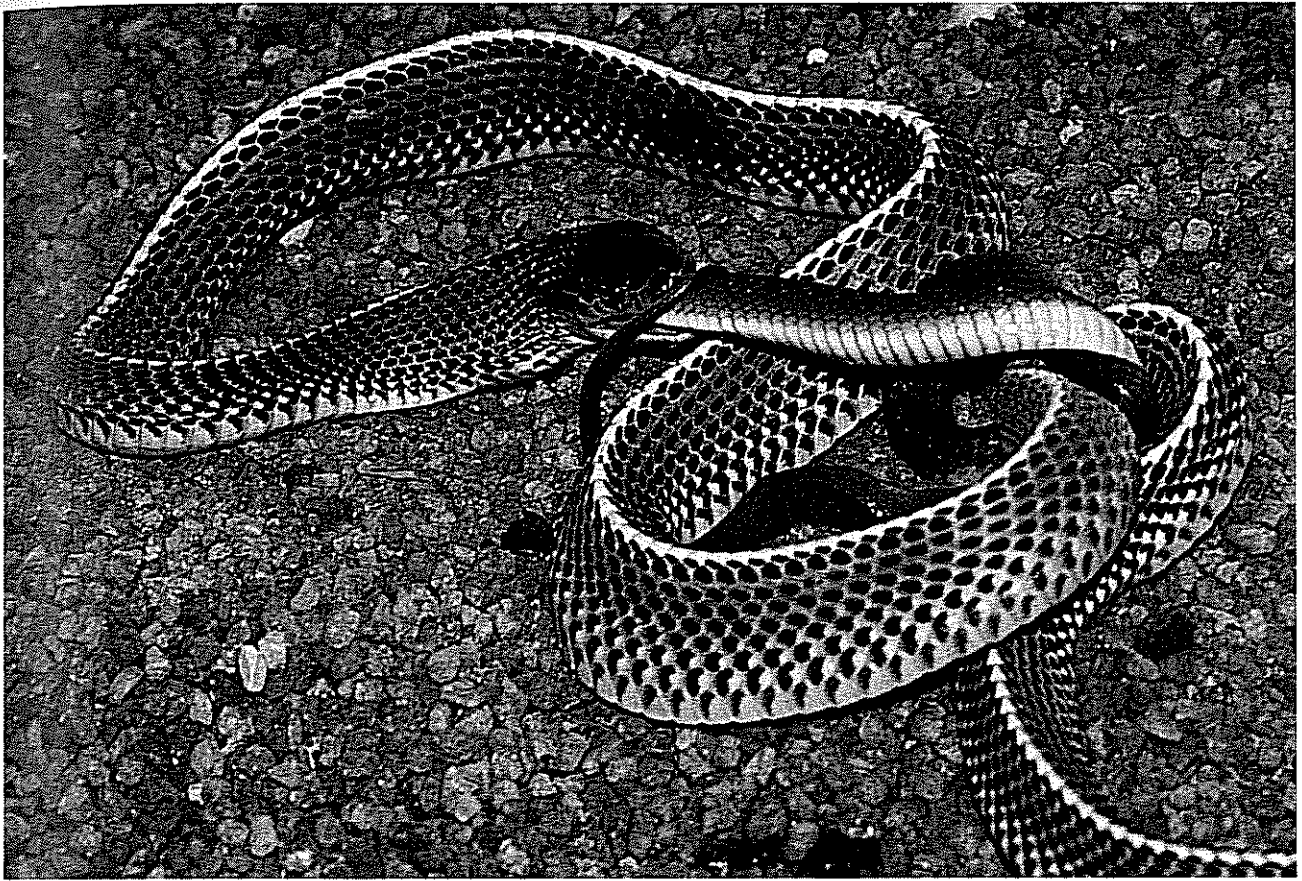


PLATE 1: Cape file-snake *Mehelya c. capensis* A. Smith. Specimen from Lake Sibaya, Natal, swallowing herald snake (*Crotaphopeltis hotamboeta*).

3.2 *Mehelya capensis capensis* (A. Smith, 1847)

Cape file-snake
Kaapse vylslang
Kapfeilennatter
(Plate 1)

This is the largest of the species and over 1,5 m in length may be reached although average sized adults are usually about 1 m in length. The overall appearance is usually a slate-grey to purplish-brown above with a characteristic pale, dirty to yellowish stripe running down the middle of the back. In prime condition or when gorged with food the body scales become well separated exposing the pinkish to mauve skin. Underparts light although the belly-scales may have dark leading edges.

Dorsal scale rows 15 (rarely 17) at mid-body; ventrals 195–224 (less than 209 in males, more than 206 in females); anal entire; subcaudals 49–58 in males and 44–54 in females. The basic scale counts of the Namibian specimens fall well into these range limits mentioned by FitzSimons (1962).

Although this is a very docile snake, even when first handled it is an enthusiastic cannibal which appears to

be practically immune to envenomation by poisonous snakes since it will tackle highly poisonous species, which no doubt will retaliate by biting their attacker. Pienaar (1978:139) reports the case of a very large specimen (1,58 m) killed near to the Kruger Park, which contained an 1 068 mm olive sand-snake (*Psammophis phillipsii*), a python (*Python sebae*) of 825 mm, a brown water-snake (*Lycodonomorphus rufulus*) of 531 mm and a Mozambique spitting cobra (*Naja mossambica*) of 481 mm.

Range: From Tanzania southwards into southern Natal and through Zambia and Zimbabwe into the northern and north-eastern Namibia. An unconfirmed sight record indicates an extension into the central parts of the country.

Records from South West Africa/Namibia (Fig. 1):

SMF 59620 ♀ Otavi (1917Cd), H. Eggert leg., don. H. Finkeldey 6.4.1964 (Mertens, 1971). SMW 463a+b ♀ + ♂ Farm Okaputa (2217Aa), H. Erpf leg., don. H. Finkeldey, April 1962 (Finkeldey, 1963). SAM 18022 ♂ 64 km S of Okavango River (1917Bd).

Unconfirmed sight records:

Farm Otjozonde, No. 36 Karibib distr. (2216Aa), April 1966; Tsumeb (1917Ba), 1966; Tsumeb (1917Ba),

Alexander König Museum (no number) ♀ Farm Omandumba-West (2115Da), P. van der Elzden, 6.4.1979 (P. v.d. Elzden, pers. comm.).

Swakopmund Museum (no number) ♀ Farm Otjitambi (1915Cc), C. A. Schlettwein, 1962 (Finkeldey, 1963). A.M.N.H.51795 (Type) ♀ Hanha, Benguella dist., Angola, coll. A. S. Vernay, H. Lang and R. Boulton, 13.5.1925 (Bogert, 1940).

Unconfirmed sight record:

Farm Otjozonde, 36 Karibib dist., April 1966, H. Finkeldey (pers. comm.).

Remarks:

This species is sympatric with *M. capensis* in the Otavi Mountains and from there southwards in the mountainous areas as far as the Swakop River valley from where both species have been reported but not been confirmed by voucher specimens.

TM 16032 contains a half-grown *Bufo g. garmani* Meek.

TM 45100 was found run over on the tar road, but still alive at about 09h00 indicating at least partial diurnal activity, while van der Elzden caught his specimen at night.

TM 48614 was found in the Aigamas Cave, famous for its white cave-barbels (*Clarias cavernicola* Trewavas). It had apparently fallen into the water, was unable to find

a way out and was found wrapped around a knot at the end of a rope suspended into the water where it must have spent some time since it was so weak that it died during the following night after capture.

3.4 *Mehelya nyassae* (Günther, 1888)

Black file-snake

Swart vyislang

Schwarze Feilennatter

(Plate 3)

Material examined:

TM 52734 ♀ Farm Klein Okapuka, 51 Windhoek dist., H. Bachran, don. April, 1971. (22°17'S, 17°02'E).

Size: 641 (510+131) mm. 180 V, 64/64 Sc, anal single, dorsal scale rows 15-15-15, 2 nasals, 6 and 7 upper and 6 and 7 lower labials, single loreals, pre-, post- and supra-ocular scales, pupil sub-circular. Dorsum (preserved) purplish-black to dark-brown interstitial skin pale but does not show normally, ventrum dark with paler edges to each ventral scale.

TM 54093 ♂ Bohelobatho Pan, Kgalagadi dist., Botswana, H. Lougher, 13.8.1980 (23°48'S, 21°22'E).

Size: 453 (359+94) mm. 173 V, 65/65 Sc, anal single, dorsal scale rows 15-15-15, 7 upper and 8 lower labial scales and 2 nasals on either side, pupil sub-circular.

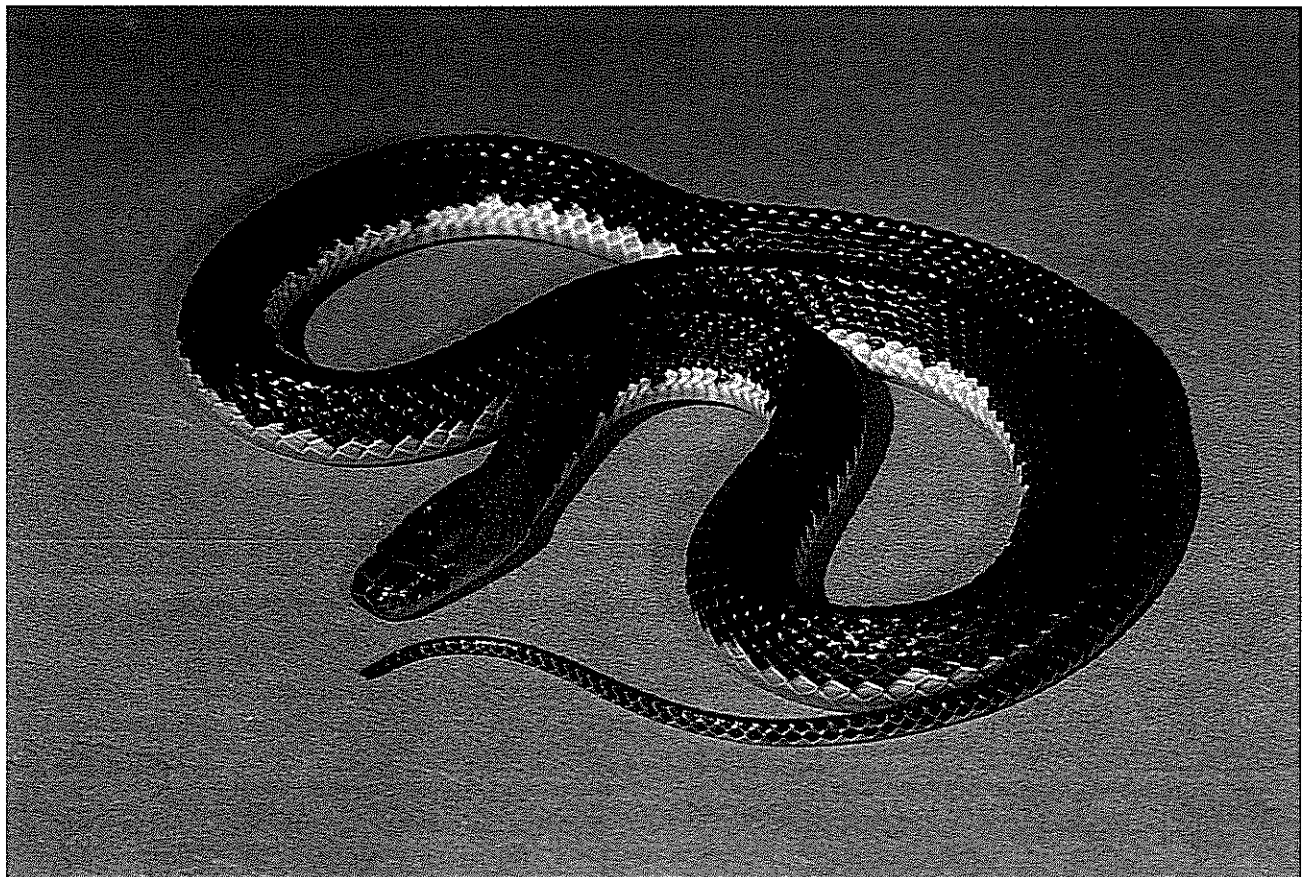


PLATE 3: Black file-snake *Mehelya nyassae* (Günther) TM 54093 Bohelobatho Pan, Botswana.

Dorsum (alive and preserved) faintly purplish-black on head and neck and distal part of body and tail with the main parts of the body being black. Ventrums white from chin to tail, first row of dorsals on either side of body white with a few dark dorsals extending into the white lateral scale rows as scattered individual or small groups of scales.

The stomach contents of TM 52734 included the remains of the subfossorial skink *Lygosoma sundevallii*, beetle elytra which probably had been eaten by the skink and the tiny piece of unidentifiable snake skin.

TM 54093 had an empty digestive tract and was found under camping gear on red Kalahari sand.

Other material examined (22 specimens in Transvaal Museum):

Variation (FitzSimons, 1962 variation in brackets) V = 165–184 (167–181), Sc 51–65 (55–77), anal single (1), dorsal scale rows 15–15–15 (15), nasals 2 (2), upper labials usually 7 (n=34) occasionally 6 (n=4) (7 rarely 6), lower labials 8 (n=32) occasionally 7 (n=3) (usually 8), loreals single and horizontally elongate, in touch with posterior nasals and pre-ocular, in TM 42981 (Farm Cavan) loreals are fused with the frontonasals on both sides while in TM 53938 (nr. Nelspruit) the loreals are shortened to such an extent that the frontonasal and the 2nd upper labials are in touch, the usually single postoculars are divided into two in eight cases while only a single case of a divided preocular was observed.

The dorsal colouration is consistently dark purplish to brownish-black with occasional specimens showing white lateral scale rows with irregular intrusions of black scales. The ventrum may be dusky to white with any variation in between.

Range: An eastern form ranging from Kenya and Burundi southwards into northern Natal. Until now not recorded from west of 24°E for which reason these new apparent range extensions need confirmation.

The following is a list of localities in addition to those listed above and those published by FitzSimons (1962), based on specimens in the collections of the Transvaal Museum (TM), Transvaal Department of Nature Conservation and the National Museum of Zimbabwe (UM, QM, NMSR) and those published for the Kruger National Park.

Farm: Canterbury 2228Db, (Tvl. Dept. Nat. Cons.); farm: Cavan 2229Db, (TM); Chiredzi 2131Ba, Chizarira Nat. Park 1727Db, Christmas Pass 1832Dc, (UM); Fatima Miss. 1827Cb, (NMSR); Fishan, Gona-rezhou Nat. Park 2131Ac, Hippo Valley, Chiredzi 2131Ba, Kariba 1628Db, 15 km WSW of Katima Mulilo 1724Ca, Khumaga on Botete Riv. 2024Bc, (UM); farm: Klein Okapuka 2217Ac, Lake Sibaya 2732Bc, Lake Teza 2832Ac, (TM); Malwane 2531Bc, (KNP); Manzengeyenya for. stn. 2732Bd, (TM); nr. Mathlakuza Pan 2231Cb, (KNP); Mbazwane 2732Bc, (TM); Mooiplaas Experimental Plots 2331Cb, (KNP);

Mtubatuba 2832Ac, (TM); S end Nwaticimhire Rd. 2531Ba, (KNP); Nyamandlovu Sawmills 1928Cd, Old Umtali 1832Dc, 145 km SW of Panda-Ma-Tenga 1925Dc, (UM); Plot Rietgat, nr. Pretoria 2528Ad, ±15 km E of Sabie 2530Bb, (TM); 30 km N of Sinoia 1730Aa (NMSR); Skukuza 2431Dc, (KNP); Thabazimbi 2427Cb, (TM); Tshaneni 2531Dd, (TM, UM); Ubombo 2732Ca, (TM); Umtali 1832Dc, (UM); Zanzibar Border Post 2228Cb, (TM).

4 SUMMARY

The purpose of this publication is to draw attention to the new records of file-snakes from Namibia, from where the presence of a third species is now recorded. At the same time all new published and unpublished distribution records accumulated since FitzSimons' account in 1962 are being documented. The southerly range extension of *M. nyassae* from southern Mozambique to Durban is, ecologically speaking, not very surprising. However, the two new most westerly records, which extend the range into the more xeric areas of western Botswana and central Namibia are remarkable and require confirmation. Of *M. vernayi* five further specimens have been added to the five previously known records. Although only one further specimen of *M. c. capensis* was added to those recorded by Finkeldey (1962) and Mertens (1971), an unconfirmed sight record indicates that its range extends into central Namibia.

5 ACKNOWLEDGEMENTS

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6 REFERENCES

- BOGERT, C. M.
1940: Herpetological Results of the Vernay Angola Expedition. *Bull. Am. Mus. nat. Hist.*, 77: 1–107, 18 figs, 1 pl.

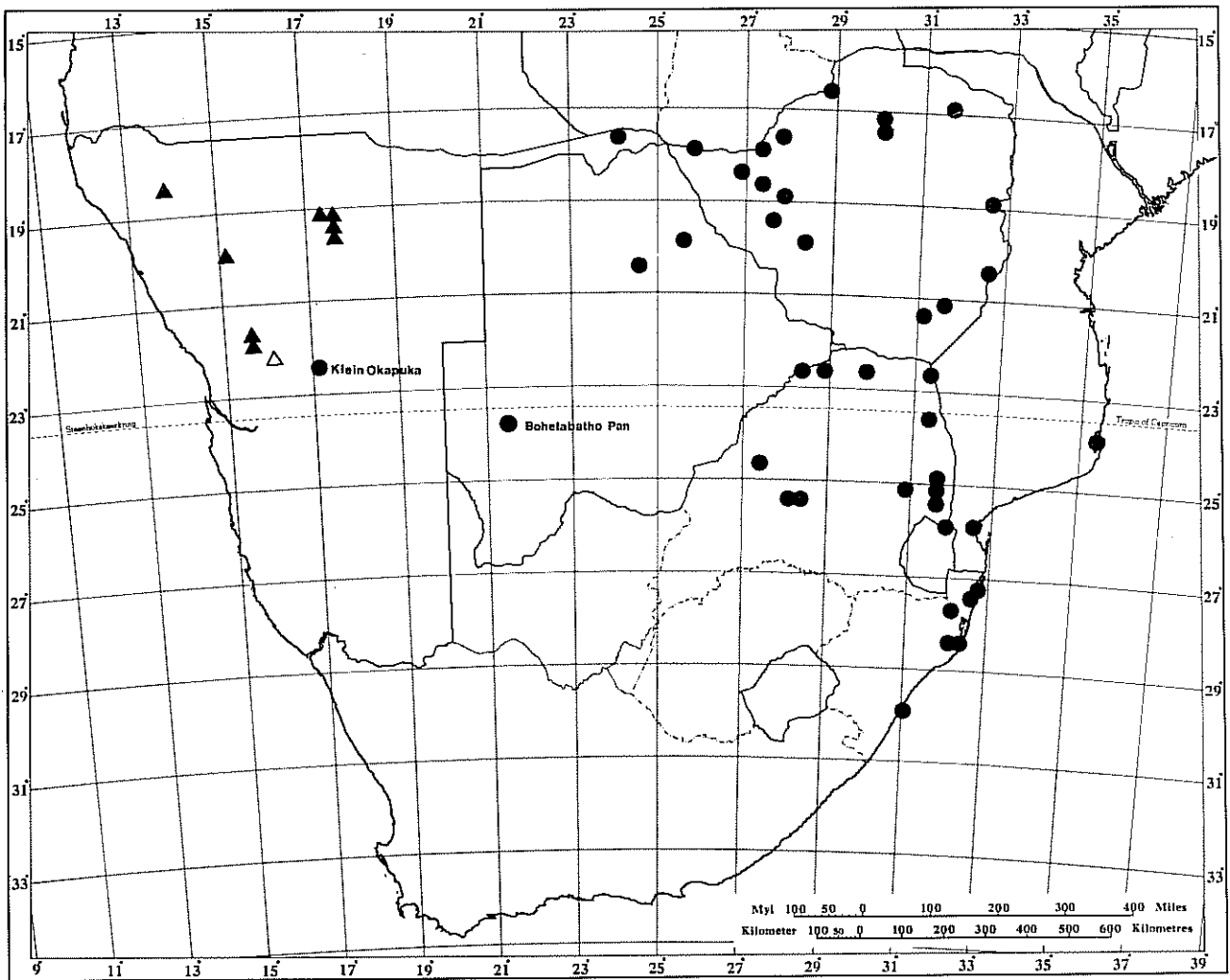


FIGURE 2: Distribution of the Angola file-snake *Mehelya vernayi* (●) and the black file-snake *Mehelya nyassae* (▲) (open symbol = sight records).

FITZSIMONS, V. F. M.

1962: *Snakes of Southern Africa*. Purnell, Cape Town.

FINKELDEY, H.

1962: Bericht der Arbeitsgruppe Amphibien und Reptilien – *S.W.A. scient. Soc. Newsletter* Nr. III/12:8,10.

1963: Die Feilennattern in Südwestafrika. *S.W.A. scient. Soc. Newsletter* Nr. IV/1:10–11.

MERTENS, R.

1955: Die Amphibien und Reptilien Südwestafrikas. *Abh. senckenb. naturf. Ges.*, 490: 1–172, 24 pl.

MERTENS, R.

1971: Die Herpetofauna Südwestafrikas. *Abh. senckenb. naturf. Ges.*, 529: 1–110.

PIENAAR, U. de V.

The Reptile Fauna of the Kruger National Park. National Parks Board and Trustees, Pretoria.