

PRELIMINARY DESCRIPTIONS OF NEW FORMS
OF SOUTH AFRICAN REPTILIA AND AMPHIBIA,
FROM THE VERNAY-LANG KALAHARI
EXPEDITION, 1930.

By

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Lygodactylus capensis ngamiensis subsp. nov.

Type: A half-grown male (V.L.K.E. No. 9) from Mabeleapudi, Ngami-land, May 9th, 1930. (TM 14467)

Diagnostic Characters: Head but slightly longer than broad; snout short, subequal to distance between eye and ear-opening. Two large supra-nasals widely separated by two rounded scales lying side by side transversely. Nostril pierced between two nasals and first labial. Differentiation between scales on occiput and those on neck not well marked.

Total length = 56 mm. Tail = 29.8 mm.

Lygodactylus picturatus chobiensis subsp. nov.

Type: An adult male (V.L.K.E. No. 501) from Kabulabula, Chobe River, July 11th, 1930.

Diagnostic Characters: Rostral twice as broad as deep; nostril pierced between two nasals; large supranasals separated by a small median scale. Upper labials 7-8, lower labials 6-7. Three post-mentals. Preanal pores 10. Tip of tail expanded laterally, with seven pairs of sub-caudal lamellae. A single ill-defined chevron-shaped marking on throat.

Total length = 80 mm. Tail = 40.4 mm.

Pachydactylus punctatus langi subsp. nov.

Type: An adult male (V.L.K.E. No. 62) collected near Gemsbok Pan, Ghanzi District, May 3rd, 1930. (TM 14574)

Diagnostic Characters: Habit slender; head short and narrow; naso-rostrals in good contact, rostral about one and a half times as broad as deep. Mental one and a half times as long as broad, subequal in breadth to adjacent labials. Scales on snout between two and three times as large

as those on occiput. Scales on back somewhat flattened, only slightly smaller than ventrals. Caudal scales large, imbricate and at least twice as large as those on back. Light greyish to purplish brown above, with a dorso-lateral series of transversely elongate large dark brown blotches; a dark streak from nostril to eye.

Total length = 73.0 mm. Tail = 39.0 mm.

Colopus kalaharicus sp. nov.

Type: An adult male (V.L.K.E. No. 48) collected near Kaotwe Pan, Central Kalahari, April 4th, 1930.

Diagnostic Characters: Head slightly longer than broad; scales on snout distinctly larger than those on back. Rostral almost twice as broad as mental. Scales on back small, rounded, convex, subequal to chin shields. Hind limbs with a minute claw to each digit.

Total length = 99.0 mm. Tail = 47.0 mm.

Agama hispida makarikarica subsp. nov.

Type: An adult male (V.L.K.E. No. 252), one of a series of sixteen specimens (V.L.K.E. Nos. 241-256) collected on the northern edge of the Makarikari Pan, N. Bechuanaland, August, 1930. M 144581

Diagnostic Characters: Habit small and stout. Ear-opening about half the length of eye-cleft. Depth of head much greater than length of hand. Tibia much shorter than length of head. Fifth toe extending not nearly as far as the first. Vertebral crest low, but distinct from nape to root of tail. Upper head shields rugose but not keeled. Small dorsal scales only slightly roughened, strongly keeled and spinose. Enlarged dorsals in six to eight regular longitudinal series on either side of vertebral line. Ventral scales smooth or feebly keeled, distinctly mucronate. Ten to twelve upper labials. Twelve scales under third toe. Tail cylindrical, slender, slightly longer or shorter than head and body. Males with a single row of 10-12 pre-anal pores. Above pale greyish to greyish brown, with or without a series of four large darker spots on either side median line; a bright yellow vertebral streak usually present. Two dark brown to blackish bands across head. Bright orange-yellow blotches between angle of jaw and forearm, in armpit and groin. Cheeks and upper lips in males bright blue. Below creamy to pale yellowish, with or without blackish vermiculations on throat and belly.

Total length = 142 mm. Tail = 76 mm.

Monopeltis vernayi sp. nov.

Type: An adult specimen (V.L.K.E. No. 320), collected at Gomodimo, Central Kalahari, April 2nd, 1930. M 14468

Diagnostic Characters: Anterior head shield larger than posterior, with a very sharp projecting horizontal edge; a pair of small transverse occipitals. Ocular small, with eye visible near lower posterior edge. Three upper labials. A large temporal in contact with occipital and rostral,

separated from third labial by two small post-oculars. Three lower labials, third by far the largest. Mental small, followed by a median post-mental, which is broader than long, extending on sides to suture between first and second labials and in contact posteriorly with a row of four slightly elongate chin shields, of which the outer pair are larger than the inner. Two pairs of large elongate pectoral shields, middle pair longer and slightly narrowed anteriorly; four rows of scales on neck. One hundred and ninety-eight annuli on body and ten on tail; each annulus about middle of body with 22 dorsal and 18 ventral scales. Two median rows of ventral scales broader than long. Two pairs of anal segments, inner larger than outer. Purplish brown above; snout dirty yellowish pink. Below vinaceous pink.

Total length = 243 mm. Tail = 12 mm.

Typhlacontias ngamiensis sp. nov.

Type: An adult specimen (V.L.K.E. No. 772) collected at Motlhatlogo, Ngamiland, May 15th, 1930.

Diagnostic Characters: Snout strongly projecting. Rostral very large, equal to length of frontal + frontonasal, subequal to interparietal, greater than supra- and frontonasal together. Two widely separated prefrontals. Two supra-oculars, a loreal and two small postoculars. No suboculars or preoculars. Four upper labials, second entering eye. Eighteen scales round middle of body. Pre-anals not or but feebly enlarged. Diameter of body about thirty times into total length.

Total length = 125 mm. Tail = 45 mm.

Pelusios bechuanicus sp. nov.

Type: An immature specimen (V.L.K.E. No. 1343) collected in the Thamalakane River at Maun, Ngamiland, May 30th, 1930.

Diagnostic Characters: Shell well-raised and smoothly convex; edges more or less regular and not sinuate; vertebral protuberances well-marked on all vertebrae, especially so on third and fourth. Vertebrae II and III much longer than broad. Intergular less than twice as long as broad. Outer border of pectoral greater than that of humeral. Upper jaw feebly notched, cusps barely distinguishable. Dark olive above, with a pale yellowish band round shell just above marginals. Head black, with more or less symmetrically arranged yellow markings forming a regular design.

Length of Carapace = 107.5 mm.

Length of Plastron = 103.5 mm.

Width of Shell = 80.0 mm.

Height of Shell = 44.5 mm.

Kinixys australis mababiensis subsp. nov.

Type: An adult female (V.L.K.E. No. 1344) collected at Tsotsoroga Pan, Mababe Flats, June 26th, 1930.

Diagnostic Characters: Shell distinctly flattened along middle of back, from hind margin of first vertebral to middle of fourth. A median ridge present on all vertebrae, forming on first, fourth and fifth distinct promin-

ences. Latero-posterior edges of carapace strongly reverted and dentated. Anal suture moderate, subequal in length to femoral. First vertebral acute-angled anteriorly.

Length of Carapace	= 155 mm.
Length of Plastron	= 145 mm.
Width of Shell	= 110 mm.
Height of Shell	= 65 mm.

Typhlops boylei sp. nov.

Type: A semi-adult specimen (V.L.K.E. No. 805) collected at Gemsbok Pan, Ghanzi District, April 28th, 1930.

Diagnostic Characters: Snout prominent, with an obtusely angular horizontal edge. Rostral not reaching to level of eyes. Four upper labials, third and fourth below ocular. Twenty-six scales round middle of body. Diameter of body about 45 times into total length.

Total length = 182 mm. Tail = 3 mm.

Chlorophis vernayi sp. nov.

Type: A single adult male (V.L.K.E. No. 843) collected at Maun, Ngamiland, May 23rd, 1930. Between *C. emini* and *C. ornatus*.

Diagnostic Characters: Rostral one and a third times as broad as deep, portion visible from above about one quarter its distance from frontal. Snout one and two-thirds as long as broad, shorter than its distance from end of snout, much shorter than parietals. A single preocular separated from frontal. Two postoculars. Temporals 1 + 2. Nine upper labials, fourth, fifth and sixth entering eye. Five lower labials in contact with anterior chin shields. Scales in 15 rows. Ventrals 162. Subcaudals 86.

Total length = 812 mm. Tail = 228 mm.

Psammophis longirostris sp. nov.

Type: A semi-adult specimen (V.L.K.E. No. 854) collected at Gomodimo Pan, Central Kalahari, April 1st, 1930. Between *P. crucifer* and *P. ansorgii*.

Diagnostic Characters: Snout strongly projecting, one and a half times as long as eye. Internasals just over half length of prefrontals. Frontal twice as long as broad, distinctly narrower in middle than supra-ocular, equal to its distance from end of snout, as long as parietals. Loreal twice as long as deep. A single semi-divided preocular, in wide contact with frontal. Two postoculars. Temporals 2 + 2. Seven upper labials, third and fourth entering eye. Four lower labials in contact with anterior chin shields. Scales in 15 rows. Ventrals 160. Subcaudals 105.

Total length = 840 mm. Tail = 285 mm.

Xenocalamus bicolor maculatus subsp. nov.

Type: An adult specimen (V.L.K.E. No. 835) collected at Kuke Pan, March, 1930.

Diagnostic Characters: Rostral large, slightly convex below, about one-third length of frontal, which is over half total length of shielded part of head. Large internasals forming a short median suture. Nasals divided; nostril pierced in smaller anterior half. A small supra-ocular. A large pre-ocular. Postocular small. Suture between parietals distinctly longer than scale immediately behind. Six upper labials, third and fourth entering eye. Ventrals 216. Subcaudals 32. Bright yellow above and below, with a series of large liver-brown spots or blotches down back, disposed in alternating and partly confluent pairs.

Total length = 440 mm. Tail = 44 mm.

Rana chobiensis sp. nov. 20

Type: An adult specimen (V.L.K.E. No. 998), collected at Kasane on the Chobe River, July 26th, 1930. Allied to *R. oxyrhynchus*.

Diagnostic Characters: Vomerine teeth in two slightly oblique oval groups, in contact with inner front edge of choanae. Interorbital space narrow, about two-thirds width of upper eyelid. Tympanum large, slightly smaller than eye. Fingers and toes elongate and slender; toes almost entirely webbed; tibia into length from snout to vent one and a half times, equals distance from nostril to vent. Tibio-tarsal articulation of adpressed hind limb reaches beyond tip of snout. Six well-marked longitudinal glandular folds on back. Chocolate brown above, with darker blotches; below creamy to yellow, spotted with dark brown.

Length from Snout to Vent = 48.5 mm.

Rana vernayi sp. nov.

Type: A half-grown specimen (V.L.K.E. No. 975), collected on the Metsimaklaba River, March 11th, 1930. Allied to *R. mascariensis*.

Diagnostic Characters: Vomerine teeth in two short straight series with outer edges in contact with inner front edge of choanae. Snout pointed, projecting and twice as long as eye. Interorbital space wide, one and a half times width of upper eyelid. Tympanum about three-quarters diameter of eye. First finger extending as far as or slightly further than second. Toes two-thirds webbed. A small rounded outer, and a larger elongate inner metatarsal tubercle present. Tibio-tarsal articulation of adpressed hind limb reaches to between eye and nostril. Tibia goes just over one and four-fifths and foot just less than one and a half times into length from snout to vent. Eight longitudinal glandular folds on back, often broken up. Greyish brown above spotted with darker; a pale reddish vertebral streak from tip of snout to vent. Below uniform creamy white.

Length from Snout to Vent = 36.3 mm.

Phrynobatrachus maculatus sp. nov.

Type: An adult specimen (V.L.K.E. No. 1012), from the Rain-Forest, Victoria Falls, July 31st, 1930. Allied to *P. ranoides*. TM 14830

Diagnostic Characters: Body slender. Head slightly longer than broad. Snout sub-acuminate, much longer than eye. Interorbital space subequal to width of upper eyelid. Tympanum indistinct, about two-thirds diameter of eye. First finger not extending as far as second. Toes about two-thirds webbed. Subarticular tubercles distinct. Tarso-metatarsal articulation of adpressed hind limb reaches far beyond end of snout, tibio-tarsal joint almost to nostril. Tibia into length from snout to vent one and three-quarter times, foot one and a quarter times. Skin much roughened above with warty tubercles. Olive-brown above, mottled with darker; a dark cross bar between eyes and an X-shaped marking between shoulders. Below whitish, spotted all over with dark brown; throat pale brownish.

Length from Snout to Vent = 25.8 mm.

Phrynobatrachus mababiensis sp. nov.

Type: A juvenile male (V.L.K.E. No. 986) from Tsotsoroga Pan, Mababe Flats, June 17th, 1930. Allied to *P. natalensis*. TM 14838

Diagnostic Characters: Habit medium. Head slightly longer than broad. Snout obtusely pointed, longer than eye. Nostrils widely spaced and directed outwards. Interorbital space much wider than upper eyelid. Tympanum hidden. First finger much shorter than second. Toes less than one-third webbed. Tarso-metatarsal articulation of adpressed hind limb reaches just beyond tip of snout. Skin roughened above with irregular flattened warts. Males with external sub-gular vocal pouch. Pale olive grey to dark olive-brown above, with mottlings of darker. Throat in males blackish, in females finely speckled with brownish.

Length from Snout to Vent = 15.5 mm.

Bufo regularis ngamiensis subsp. nov.

Type: An adult specimen (V.L.K.E. No. 1283) collected at Motlhatlogo, Ngamiland, May 12th, 1930.

Diagnostic Characters: Head very wide; canthus rostralis well-marked; nostrils set very close together, distance between less than distance from eye; interorbital space distinctly concave. Tympanum largely visible from above; major axis much less than diameter of eye. Fingers slender. Tarso-metatarsal articulation of adpressed hind limb barely reaches shoulder. Tibia short, almost three times into length from snout to vent. Parotids distinct, from two and a half to three times as long as broad. Uniform olive-brown to blackish above; dirty greyish white below.

Length from Snout to Vent = 76.0 mm.