

FROGS OF THE WOLWEKRAAL PRIVATE NATURE RESERVE, PRINCE ALBERT

Compiled by: Willem Matthee
Experiential Training student
Renu-Karoo Veld Restoration cc
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INTRODUCTION

During 2010, I observed numerous frog species on the Wolwekraal Private Nature Reserve, and managed to photograph some of them. This document acts as an identification guide for the frog species already observed on the reserve. Other species that may occur on Wolwekraal, will be described in another document. This guide includes photographs, the key identification features, calls and habitats of all the species observed.

Observations of Wolwekraal frogs were mostly confined to the nursery and surrounds, with only a few incidental records made on the rest of the estate. In order to compile a complete list for Wolwekraal, I suggest that any pools forming after rainstorms are thoroughly investigated, as these temporary pools are the required breeding habitat for numerous frog species. Another major habitat for frogs is the Dorps River. but due to its erratic flow and the invasion of its banks by the alien *Tamarix ramosissima* frog species may be rare along its course. The sewage overflow stream also presents possibilities for unrecorded species to be observed, as a number of frogs have been observed along its course. Tadpoles have also been observed in the stream, indicating successful breeding by frogs. Very few frog species would occur far from temporary or permanent water sources, but a few may be found in the soft sand of the aeolian and alluvial plains. During and after summer rainstorms, the presence or absence of frogs in these areas can be determined by listening for frog calls.

Nomenclature for this document follows Du Preez and Carruthers (2009). This book is also the main reference consulted for the compilation of this document. Information obtained from this source is supplemented by my own observations made during 2010.

Frogs observed on the Wolwekraal Private Nature Reserve

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SPECIES 1: *AMIETIA FUSCIGULA*

Family: Pyxicephalidae

Synonyms: *Rana fuscigula*'

Common names: Cape River Frog, Kaapse Rivierpadda (Afr.)

Size: Large; maximum 125 mm

Identification: Large size
Extensively webbed hind feet
When viewed from above, eyes do not bulge out of the head's outline

Behaviour: Diurnal
Often found along edge of streams and rivers, but jump into water when threatened

Call: The call consists of numerous taps, followed by a raucous kua-kua sound
Observed calling during middle of day along sewage stream, and also along the Dorps River
Calls from concealed or exposed positions along the waterside.

Habitat observed: Sewage stream & Dorps River
Nursery
Normally found near permanent water, both man-made and natural.

SPECIES 2: *CACOSTERNUM BOETTGERI*

Family: Pyxicephalidae

Common names: Boettger's Caco, Common Caco, Gewone Blikslanertjie (Afr.)

Size: Very small; maximum 23 mm.

Identification: Very small, flat frog (distinct from *Tomopterna tandyi* and *Vandijkophrynus gariensis*)

Underside clearly spotted dark grey or black (distinct from all other species except other *Cacosternum* spp.).

Blotches on underside do not fuse (distinct from *Cacosternum karrooicum*)

Dark line running from the snout, through the eye, to the front legs (distinct from other frogs, except *Strongylophus grayii*)

Males have orange-brown throat, females white (photo)

Behaviour: Unobtrusive

When held upside down between thumb and forefinger, plays dead, and remains motionless for a while after release

Often aestivate under stones, logs, etc. during the dry season

Possibly found in nursery throughout the year due to constant water supply

Breeds in temporary pools (observed breeding in temporary pools at Swartrivier, November 2010)

Call: Rapid, high-pitched, metallic clicks are produced from a concealed position.

After rain, males often call during the day and night

Have been heard calling throughout the day during November 2010

Habitat observed: Nursery cuttings bed

Since breeding takes place in temporary pools, pools forming on the plains during wet periods should be investigated for these frogs

These frogs favour open areas, particularly grassland areas



SPECIES 3: *PYXICEPHALUS ADSPERSUS*

Family: Pyxicephalidae

Common names: Giant Bullfrog, Reuse Brulpadda (Afr.)

Size: Very large; maximum 245 mm (largest frog species in RSA)

Identification: Very large size
Dark green above, yellow below
Males larger than females, and possess bright yellow or orange colouration at the base of the forelegs

Behaviour: Remains buried for most of the year
Breeds in summer, utilising temporary pools

Call: Very deep, booming “who-oop” produced by male during the summer months (breeding season)
Have been heard calling during the heat of the day
Males call from shallow water, often in clusters

Habitat observed: Heard calling from the outflow at sewerage treatment plant
Preferred habitat is seasonal, grass-lined pans and pools in open, flat areas
The sandy flats should also be investigated for this species after summer thunderstorms

SPECIES 4: *STRONGYLOPUS GRAYII*

Family: Pyxicephalidae

Common names: Clicking Stream Frog, Kliklangtoonpadda (Afr.)

Size: Medium; maximum 50 mm

Identification: Most variable frog species on Wolwekraal
Various striped and blotched combinations occur
Hind legs' toes are extremely long, hence the Afrikaans common name
Little webbing between toes of hind feet (distinct from *Amietia fuscigula*)
A dark line through the eyes are usually present (distinct from other species, except *Cacosternum* spp.)

Behaviour: Most common frog species on Wolwekraal
Calls throughout the day during cooler weather
Calls from water's edge and from under mist sprayers in nursery

Call: Continuous clicking call produced singly or in choruses.
Males usually call from a concealed position

Habitat observed: Nursery, sewage stream, Dorps River
Should inhabit any habitat that has moisture throughout most of the year.





SPECIES 5: *TOMOPTERNA TANDYI*

Family:	Pyxicephalidae
Synonym:	Until recently (1996) thought to be the same species as <i>Tomopterna cryptotis</i> (Tremolo Sand Frog), but the calls and chromosome numbers differ
Common names:	Tandy's Sand Frog, Tandy se Sandpadda (Afr.)
Size:	medium; maximum 54 mm
Identification:	<p>Most significant characteristic is the large tubercle on the metatarsal, which is used to dig into the soil backwards (distinct from all other frog species except <i>Pyxicephalus adspersus</i> and other <i>Tomopterna</i> spp.)</p> <p>A lightly-coloured vertebral line occurs (distinct from all other species except other <i>Tomopterna</i> species).</p> <p>No webbing present between front toes, and webbing reduced on hind feet</p> <p>Colouration consists of darker and lighter blotches on a light brown or grey background</p> <p>General body shape is rounded, similar to that of toads (differentiated by the presence of a vertebral line in <i>Tomopterna</i>)</p>
Behaviour:	<p>Remains buried for most of the year</p> <p>Digs backwards in a shuffling manner by using the tubercles on the hind feet to shift sand sideways</p> <p>Due to the fact that it remains buried for most of the year, this species may be much more abundant than expected.</p>
Call:	<p>Consists of a series of high-pitched <i>ki-ki-ki-ki</i> notes, similar to a stick being hit on a hollow wooden object</p> <p>Calls may continue for several seconds</p> <p>On Wolwekraal, only observed calling during and after summer thunderstorms</p>

Males usually call from a concealed position along the water's edge, but have been observed calling from their underground burrows

Habitat observed: Three were dug out in the staff vegetable garden. Have been heard calling from the compost heaps and vegetable garden.

Usually inhabits grassy areas, but it could be common in any area consisting of soft, relatively moist soil

Breeds in temporary pools, streams, pans and dams

Should be found more commonly in sandy areas on Wolwekraal.





SPECIES 6: VANDIJKOPHRYNUS GARIEPENSIS

Family: Bufonidae

Synonyms: *Bufo gariensis*

Common Names: Karoo Toad, Karoo Skurwepadda (Afr.)

Size: Medium – large; maximum 95 mm

Identification: Rough-textured, bumpy skin

Clearly-raised parotid gland (distinct from all other species apart from other members of the Bufonidae family)

Colouration consists of dark blotches on a lighter-coloured background, but the colouration may be very variable

Blotches on back in an asymmetrical pattern (differs from *Amietophrynus rangeri*, previously *Bufo rangeri*)

Behaviour: Most common toad in Prince Albert region

Jumps weakly when disturbed, and often prefers to walk rather than jump

Breeds in pools and streams





SPECIES 7: *XENOPUS LAEVIS*

Family: Pipidae

Common names: Common Platanna; Gewone Platanna (Afr.)

Size: Medium-large; maximum 147 mm.

Identification Completely aquatic, only leaving water during damp periods in order to find new pools

Completely webbed hind feet, with claws present on three of the toes of the hind feet (distinct from all other frog genera)

Lateral line system (similar to that of fish) present

Only *Xenopus* species in the Prince Albert region

Behaviour Completely aquatic

Produces copious amounts of slime when captured, making it very difficult to capture

Call: A drawn-out snoring sound is produced underwater

Mostly call at night, but also during the day during the breeding season

Habitat observed: Have been heard in the sewage stream

Have also been observed in the Dorps River

REFERENCES

Van Wyk, L. & Carruthers, V. (2009) *A complete guide to the frogs of Southern Africa*. Cape Town: Struik Nature.