

CHAMAELEONIDAE

Bradypodion occidentale (Hewitt, 1935)

Western Dwarf Chameleon

REPRODUCTION/COLOUR

Bradypodion occidentale do not exhibit a seasonal pattern of reproductive activity (Jackson, 2007) and two to three litters are believed to be produced per year (Tilbury, 2010). Gravid females have been documented in specimens collected in October through January and in April (Jackson 2007), with clutch sizes ranging from six (Jackson, 2007) to 20 (Tilbury, 2010). Jackson (2007), however, lacked female specimens collected in February, March, June and August, and examined only one to eight female specimens in the remaining months, limiting the application of these data for additional studies for temporal presence of gravid females.

Additionally, *B. occidentale* exhibits two to three deep, pigmented gular grooves (Tolley & Burger, 2007; Tilbury, 2010), which extend posteriorly from the tip of the jaw to the axillary region of the forelimb. These gular grooves appear in a variety of colours, including a deep velvety purple-black, a bright yellow and an electric orange colouration (Tolley & Burger, 2007). The colour of these grooves, however, is not known to change or vary within individuals or to be sex/size dependent as a variety of colours appear to be present within populations, sexes and age classes. These anecdotal observations suggest that gular groove colouration is highly variable within populations.

On 4 March 2012, we collected ten *B. occidentale* individuals, including eight females from Tygerberg Nature Reserve in Western Cape Province, South Africa (CapeNature permit number 0056-AAA007-00005; University of South Florida Institutional Animal Care and Use Committee procedure W4074; South African National Biodiversity Institute ethical clearance 002/2011). These individuals were maintained in captivity for 12 days for a separate project and

during this time, two females gave birth. The first female (86.7 mm SVL and 13.9 g post-partum mass) gave birth to nine neonates and an unfertilized ovum on 13 March. The second female (90.26 mm SVL and 14.4 g post-partum mass) gave birth to eight neonates on 14 March. The clutch of nine had a mean SVL of neonates (mean \pm SD, [range]) of 27.26 ± 1.19 mm [25.1-29.2] and mean body mass of 0.52 ± 0.02 g [0.50-0.54]. The clutch of eight had a mean SVL of neonates of 25.88 ± 1.20 mm [23.6-27.3] and mean body mass of 0.44 ± 0.02 g [0.41-0.49]. Both females that produced clutches exhibited black coloured gular grooves, while all neonates from both clutches exhibited orange coloured gular grooves. All originally collected individuals were released at their exact site of capture and neonates were released within 1 m of their mother's capture site within 24 hours of parturition. These data build on that already published for reproductive timing and clutch size in *B. occidentale*. Furthermore, with additional study, a better understanding of the inheritance patterns of gular groove colouration for this species could be developed.

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CHAMAELEONIDAE

Bradypodion setaroi Raw, 1976

Setaro's Dwarf Chameleon

REPRODUCTION

Sodwana Bay, KwaZulu Natal, South Africa (27°31'329"S, 32°40'146"E, 2732DA, 16m a.s.l).

On the 20th of February 2013, an adult female Setaro's Dwarf Chameleon (*Bradypodion setaroi*) was observed giving birth to nine young. Five of the young were alive and the other four were stillborn, yet fully developed. The mean weight of the five live young was 0.180 g and that of the stillborn young was 0.175g (Table 1). Animals marked with an asterisk (*), are those individuals which were dead at birth.

The female, which was measured after she had completed giving birth, had a snout-vent length of 50 mm and a tail length of 51 mm. Her weight was 1.9 g, which is very close to the combined weight of all nine babies which was 1.6 g.