GRAYIA CAESAR (African Banded Water Snake). SEXUAL Dl-
MORPHISM. The rare and poorly-studied aquatic colubrid
Xenurephis caesar Günther, 1863 was described on the basis of
an adult female (BMNH 1946.1.6.38). Grayia tholloni Mocquard,
1897 seemed to bridge so well the gap between X. caesar on the
one hand and Grayia smithii and G. ornata on the other hand that
Mocquard (1897. Bull. Soc. Philom. Paris 8(9):5–20) and later
fasc. 1:1–14) stated that these four species had to be placed in
a single genus. While studying the relationships between these
forms, we examined all 27 available specimens of G. caesar in
the Muséum national d’Histoire naturelle (MNHN, Paris), Musée
Royal de l’Afrique Centrale (MRAC, Tervuren), British Museum
of Natural History (BMNH, London) and Institut Royal des Sci-
ences naturelles de Belgique (IRSNB, Brussels): 16 females and
11 males whose sex was determined by tail dissection.

Four notable sexually dimorphic characters were revealed in
G. caesar: anal scale state, number of white bands on body, num-
ber of ventral scales, and number of subcaudal scales. All males
have an undivided anal, while all females but one (BMNH
1912.6.27.24) have a divided anal. This represents an original
and new sexually dimorphic character among snakes. The males
have fewer white bands on the body than females (males: mean ±
SD = 24.0 ± 2.1, range = 21–28, N = 11; females: mean ± SD =
27.6 ± 1.5, range = 26–30, N = 16). This difference was statisti-
cally significant (Mann-Whitney U Test, P ≤ 0.05). The bands are
also present on the tail, which is rarely entire, as in many other
99) was used for counting ventrals. The number of ventrals ranges
from 123 to 127 in males (125.0 ± 1.2, N = 11) and from 136 to
145 in females (139.8 ± 2.4, N = 16). Thus, ventral counts are
non-overlapping (Mann-Whitney U, P ≤ 0.05). The number of
subcaudals in specimens with an entire tail ranges from 151 to
162 in males (157.5 ± 4.2, N = 6) and from 140 to 146 in females
(143.3 ± 2.8, N = 4); thus, this character also separates the sexes
(P ≤ 0.05).

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