

## ONE LESS ACHATINA IN KENYA: *A. YALAENSIS* GERMAIN AND *OREOHOMORUS CONNOLLYI* (ODHNER) (PULMONATA: SUBULINIDAE)

Germain (1920, 1923, 1936) described several land-snails collected by Guy Babault in western Kenya, including four from “bords de la rivière Yala” given the epithet “*yalaensis*”. The placement of one, *Achatina yalaensis* Germain 1936, has remained uncertain but is resolved here.

In his description, Germain (1936) discussed a resemblance to only one taxon, *A. pfeifferi* Dunker 1845 (type of *Pintoa* Bourguignat) including its var. *eugrapt* Pilsbry 1919. In his achatinid monograph, Bequaert (1950) listed *A. yalaensis* in *Achatina* subgenus *Lissachatina* Bequaert without any species-specific comment, and it is not clear whether he examined material. However, he maintained *Pintoa* as a separate subgenus of *Achatina*, so evidently disagreed with Germain about the similarities between *A. pfeifferi* and *A. yalaensis*. Verdcourt (1966) noted that from the description *A. yalaensis* seemed “like a *Homorus* probably very similar to *H. ellioti* [(Smith, 1895)] and *H. zebra* [(Connolly, 1923)]”. Verdcourt later (1983, 2006) retained the species in *Achatina* (*Lissachatina*) but with the comment “probably an *Oreohomorus*”, the genus in which by then he was treating *H. ellioti* and *H. zebra*. Although *H. ellioti* was also originally erected in *Achatina*, the conchological differences between *Achatina* Lamarck (Achatinidae) and *Oreohomorus* Pilsbry (Subulinidae) are numerous, with the latter considered a mainly West-Central African warm-humid forest group (e.g. Pilsbry, 1919; Verdcourt, 2006; Pickford, 2009; Wronski & Hausdorf, 2010). It appears that Verdcourt never saw type or other material of *A. yalaensis*, which may have prevented him resolving the matter addressed here.

The figured syntype lot of *A. yalaensis* at the Muséum National d’Histoire Naturelle, Paris (MNHN) contains all five specimens figured by Germain (1936) and shows his figures to be accurate. His statement that juveniles “have a very pronounced and almost protruding median keel” (“muni d’une carène médiane très prononcée, presque saillante”) is arguably an exaggeration: the last whorl is simply subangulate, as is common among larger African subulinids

(Pilsbry, 1919). A sixth specimen (juvenile) is also present, as is a single young juvenile *Limicolaria* sp. (Achatinidae), identified as such with a label from the achatinid specialist A. R. Mead, dated 23.ix.1983. It seems unlikely that Germain or Babault would have mixed this up with *A. yalaensis*, although a mistake in Germain’s identifications of some of Babault’s other Achatinidae was discussed by Verdcourt (1962). The rest of Germain’s description tallies well with the specimens. The sculpture is strongly but irregularly decussate, becoming puckered near the suture, a common achatinid feature. Although *O. ellioti* and *O. zebra* are smoother, strong decussate sculpture occurs in other *Oreohomorus* species including *O. olivaceus* (Pollonera 1907) and *O. fuscostrigatus* (Smith 1909). The initially slightly concave and then irregularly convex spire of *A. yalaensis* recalls certain growth abnormalities seen in large series of Achatinidae. However, the apex is much narrower and more acute than in even the smallest achatinids, indicating a quite different embryonic shell.

Indeed, the breadth of the shell, in combination with the sculpture, size and markings, is only matched in one other species, *Homorus connollyi* Odhner 1932. This was collected in 1915 by A. J. Allen Turner at “Kagamagoes, N. Kanarogo, British East Africa” and examined by M. Connolly (Odhner, 1932). Verdcourt (1983, 2006) listed it in *Oreohomorus*. That the species belongs there, and in the Subulinidae rather than the Achatinidae, can be further supported by comparing the radula data of Pilsbry (1919), Odhner (1932), and Wronski & Hausdorf (2010). Odhner’s description and figures strongly suggest it is the same species as *A. yalaensis*. Examination of the holotype and two paratypes in the Naturhistoriska Riksmuseet, Stockholm (SMNH, invertebrate type collection nos. SMNH.1902 and SNMH.4234) confirms this. The irregularly convex spire of *A. yalaensis* is present in *O. connollyi*, so is unlikely to represent an abnormality.

Germain (1936) did not mention *H. connollyi*, or Odhner’s paper. The two species are

therefore here synonymised under *O. connollyi* (Odhner 1932), which has priority. A potential senior secondary homonym of *yalaensis* Germain 1936 exists in *Oreohomorus*: *O. nitidus* var. *yalaensis* Germain 1923. As Germain (1923) does not unambiguously reveal that this was intended to be infrasubspecific, it is treated as subspecific and therefore available under the ICZN (1999: Arts. 45.5, and 45.6.4). However, from ICZN, Art. 60.2 there is no need to replace *yalaensis* Germain 1936 provided it occurs in *Oreohomorus* only in synonymy.

The species is known only from a small part of western Kenya. Odhner's (1932) and Germain's (1936) type localities must refer to areas within 100 km of one another and potentially much closer. The Yala River runs from the Mau Escarpment to just north of the Winam (Kavirondo) Gulf and passes through Kakamega Forest for what was probably once a longer part of its course. The "Kagamagoes" of Odhner is clearly Kakamega, while "N. Kanarogo" may refer to the wider region of North Kavirondo. Verdcourt (1983, 2006) gives the range of *O. connollyi* merely as "Kakamega". Studies of Kakamega Forest have not found material (Tattersfield *et al.*, 2001 and references therein; Lange & Maes, 2001) and it appears there are no post-1936 records of either species. This could suggest that *O. connollyi* is very local (e.g. occurs only in gallery forest), occurs outside the forest (perhaps in less humid habitats than other *Oreohomorus*), or even that it is already extinct.

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