Is Sonderophycus Denizot (1968) valid and legitimate?

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There has been some debate on the status of *Sonderophycus* Denizot (1968) regarding its validity. Gabriel et al. (2015) have treated it as a nomenclaturally invalid name. Schneider & Wynne (2007) regarded it as a nomenclaturally valid name but at that time as a taxonomic synonym of *Peyssonnelia*. Wynne (2011) recognized it as a currently accepted valid name. According to Womersley & Sinkora (1981), the type specimen of the generitype of *Sonderophycus* was conspecific with the well-known *Peyssonnelia capensis* Montagne (Montagne 1847), the name with priority. Womersley & Sinkora stated that Denizot had misinterpreted the type for his *Sonderophycus*. To accommodate material conforming to Denizot's account, Womersley & Sinkora described the new genus and new species *Sonderopelta coriacea*. This taxon was what Harvey (1859, pl. 81) had erroneously called "*Peyssonnelia australis*".

The first question is whether Denziot's (1968) *Sonderophycus* is valid. In proposing *Sonderophycus*, Denizot (1968, p. 307) provided a Latin description for it, and he cited *Sonderophycus australis* as the type species. So the generic name *Sonderophycus* is deemed validly published.

The second question is whether *Sonderophycus australis* (Sonder) Denizot is valid. On page 260 Denizot proposed:

Sonderophycus australis (Sonder 18) nova comb. Sonder 18.. p. 685 (*Peyssonnelia australis*)

On page 283, Denizot had:

Sonder, W. 18 . . Linnaea vol. 25 (non vu).

In the above citation, the full date is missing, but "18 . ." may be treated as a bibliographical error for 1853. This kind of error is correctable according to provisions in the Melbourne Code (Art. 41.6, McNeill et al., 2012).

Gabriel et al. (2015: 3) stated that "Sonderopelta has been viewed to be an illegitimate name by Wynne (2011)". That is a mis-statement. Wynne (2011) regarded Sonderopelta and Sonderophycus both to be valid and legitimate names. But in accepting the treatment by Krayesky et al. (2009) that Sonderophycus australis (Sonder) Denizot is a synonym of Sonderopelta capensis (Montagne) Krayesky, then the valid generic name with priority is Sonderophycus Denizot (1968) over Sonderopelta Womersley & Sinkora (1981). Accordingly, Wynne (2011) proposed the following new combinations: Sonderophycus capensis (Montagne) M.J. Wynne and Sonderophycus coriaceus ("coriacea") (Womersley & Sinkora) M.J. Wynne.

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