

The noble and the exalted—resolving the relationships within *Ptilotus nobilis* (Amaranthaceae)

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A previous molecular study of *Ptilotus nobilis* Nees and *P. exaltatus* (Lindl.) F.Muell. has led to the conclusion that these taxa are conspecific, and subsequently to the synonymisation of the latter under the former. We tested previous species concepts of all taxa in the *P. nobilis* – *P. exaltatus* species group by examining (1) the morphology of specimens in the herbarium and field, and (2) ecological and geographic partitioning of taxa using Maxent and CART models. We provide strong evidence supporting the reinstatement of *P. exaltatus* as distinct from *P. nobilis*, on the basis of multiple morphological characters and strong ecological and geographic partitioning, the latter showing how large-scale ecological data can be used to help resolve taxonomic issues. In addition, we propose to raise *P. nobilis* subsp. *angustifolius* (Benl) Lally & W.Barker and *P. exaltatus* subsp. *semilanatus* (Lindl.) A.R.Bean to the rank of species as *P. angustifolius* (Benl) T.Hammer and *P. semilanatus* (Lindl.) F.Muell. ex J.M.Black.

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