

## LECTOTYPIFICATION OF *STUARTINA MUELLERI* (COMPOSITAE: INULEAE) WITH NOTES ON *STUARTINA* IN VICTORIA AND SOUTH AUSTRALIA

by

HELEN I. ASTON\* & D. A. COOKE†

### ABSTRACT

Aston, Helen I. & Cooke, D. A. Lectotypification of *Stuartina muelleri* (Compositae: Inuleae) with notes on *Stuartina* in Victoria and South Australia. *Muelleria* 6(4):255-257(1986). — The occurrence of *Stuartina hamata* Philipson in Victoria and South Australia is discussed. Its distribution in those states is mapped and compared with that of *Stuartina muelleri* Sonder. Distinctions between the two species are given. As type material of *S. muelleri* consists of a mixture of both species a lectotype for that name is chosen.

### INTRODUCTION

O. W. Sonder (1853) described both the genus *Stuartina* and a single species *S. muelleri* from South Australian collections of F. Mueller. No further species of this endemic Australian genus was recognised until W. R. Philipson (1937) described *S. hamata* with Coonabarrabra [Coonabarabran], New South Wales, 1883, *Lamont 215* (BM) as the type collection. Philipson also cited an 1886 collection (*Shaw s.n.*, K) from Linthwaite, Yorkshire, England, annotated as having been introduced in wool, and he commented "It is extraordinary that a species which has been introduced and collected in England should not have been recognised as distinct in Australia".

*S. hamata* and *S. muelleri* remain the only two species in the genus.

### DISTINCTIVE FEATURES

Undoubtedly the vegetative similarity of the two species of *Stuartina* (they are indistinguishable except when flowering or fruiting) and the smallness of the flowers were partly responsible for *S. hamata* not having been recognised and described much earlier. It is, however, quite distinct when in flower, the midrib of each of the inner five (usually) involucre bracts being extended beyond the bract lamina into a rigid, terete, prominently recurved, yellow-stramineous hook. In *S. muelleri* the purple-brown laminal apex of each of the inner two (occasionally one or three) involucre bracts is outcurved to strongly recurved and sometimes hook-like but there is no extension of the midrib. Burbidge & Gray (1970) and Philipson (1937) illustrate these differences. In addition, the inflorescences are all terminal (or rarely some axillary) in *S. hamata* but are both terminal and axillary in *S. muelleri* except in very depauperate plants.

### S. HAMATA IN VICTORIA AND SOUTH AUSTRALIA

Although the presence of *S. muelleri* in Victoria and South Australia is well known it is only recently that *S. hamata* has been recognised as occurring in these states. Neither Black (1957), Eichler (1965), Burbidge & Gray (1970), Willis (1973), nor Jacobs & Pickard (1981) recorded *S. hamata* for Victoria or South Australia, but listed it only for New South Wales or, in the latter reference, for New South Wales and Queensland. Examination in 1983 of *Stuartina* material in the National Herbarium of Victoria, Melbourne (MEL) and the State Herbarium, Adelaide (AD)

\*National Herbarium of Victoria, Birdwood Avenue, South Yarra, Victoria, Australia 3141.

†State Herbarium, Botanic Gardens, North Terrace, Adelaide, South Australia, Australia 5000.

showed that *S. hamata* is present in both Victoria and South Australia, occurring in drier, more inland areas than does *S. muelleri* (Fig. 1).

The dates (1968\*; 1976; 1978; 1979) of the four Victorian collections and their disjunction from the range of the species in South Australia and elsewhere apparently indicate that *S. hamata* has only recently extended into Victoria and that this extension is probably due to accidental introduction. However, the species has been long-established in South Australia as the type material of *S. muelleri*, collected between 1848 and 1853, includes a collection which is now referable to *S. hamata* (see below). In addition *S. hamata* was collected elsewhere in the Flinders Ranges in the 19th century (Mt Parry, c. 1885; Mt Lyndhurst, 1898); however, all specimens from the Eyre Peninsula — Port Augusta region are recent (1968; 1974; 1974; 1981) and may represent a current southward extension of range within South Australia.

All *Stuartina* collections mapped and/or examined in connection with this study have been annotated.

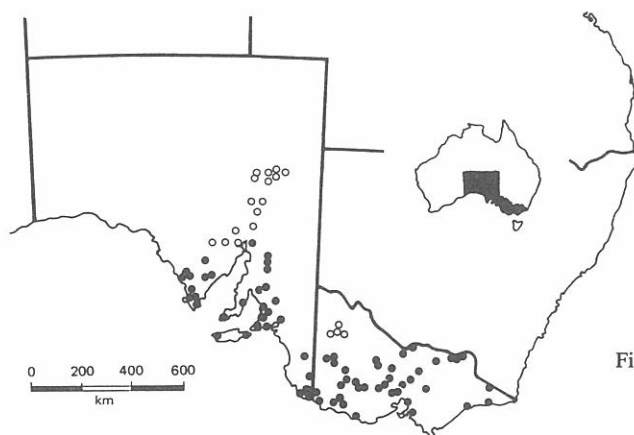


Fig. 1. Distribution of *Stuartina hamata* (circles) and *S. muelleri* (dots) in South Australia and Victoria.

#### LECTOTYPIFICATION OF *S. MUELLERI*

Lectotypification of *S. muelleri* is necessary because the material used by Sonder includes two distinct species. The following choice of lectotype suitably fits Sonder's description, maintains the traditional application of the name *S. muelleri* and allows the only other name available in *Stuartina*, *S. hamata*, to remain in use for the second species.

***Stuartina muelleri*** Sonder, *Linnaea* 25: 522 (1853). TYPE: "Lofty ranges. Onkaparinga. Cudnaka", South Australia, *F. Mueller s.n.* [1848-1853]. LECTOTYPE (here chosen): Onkaparinga, s. date. *F. Mueller s.n.* (MEL 604835, ex herb. O. W. Sonder, top left hand specimen on sheet). ISOLECTOTYPE: MEL 604835, bottom left hand specimen on sheet; ? two specimens on right hand side of sheet (see last paragraph below for explanation). SYNTYPE: Lofty ranges, s. dat., *F. Mueller s.n.* (MEL 604836, ex herb O.W. Sonder). SYNTYPE EXCLUDED BY LECTOTYPIFICATION: Cudnaka, s.dat., [*F. Mueller s.n.*] (MEL 604837, ex herb O. W. Sonder, — not *S. muelleri* but *S. hamata* Philipson). Cudnaka is believed to be Kanyaka in the southern Flinders Ranges, which Mueller visited in 1851.

\*This collection was inaccessible in unincorporated material when Willis (1973) was prepared.

All three MEL sheets cited above are from Sonder's herbarium (see Court, 1972) and all carry labels which are annotated in Mueller's handwriting with their respective locality and collector data and with a manuscript name suggested by Mueller. This name is the same on all labels and shows that Mueller considered all the material to be conspecific. Sonder, although not adopting Mueller's name, must have agreed with this view as he cited all three collections under *S. muelleri*.

Only one sheet (MEL 604837) bears Sonder's determination of *S. muelleri*, which is written on the reverse of Sonder's handwritten manuscript description. The reverse also carries pencil sketches, presumably done by Sonder, of floral dissections of *S. muelleri*. It is unfortunate that this manuscript has become attached to the only sheet now excluded from *S. muelleri* by the present lectotypification.

There has possibly been some accidental transposition of specimens between the three type sheets during the period between collection in the mid-1800's and mounting in 1982 as the two right hand specimens on MEL 604835 are apparently part of the "Lofty ranges" syntype gathering rather than the "Onkaparinga" lectotype collection. For this reason the isolectotype status of those two specimens is queried.

#### REFERENCES

- Black, J.M. (1957). 'Flora of South Australia.' Pt 4, ed. 2 (Government Printer: Adelaide). p. 896.  
 Burbidge, N.T. & Gray, M. (1970). 'Flora of the Australian Capital Territory.' (Australian National University Press: Canberra). pp. 386-388, t. 387.  
 Court, A.B. (1972). Preliminary notes on the Sonder collection in the National Herbarium of Victoria. *Muelleria* 2:188.  
 Eichler, H.J. (1965). 'Suppl. Black's Flora of South Australia.' (Government Printer: Adelaide). p.311.  
 Jacobs, S.W.L. & Pickard, J. (1981). 'Plants of New South Wales.' (Government Printer: Sydney). p.86.  
 Philipson, W.R. (1937). New species of Gnaphaleae. *J. Bot.* 75:314-318.  
 Sonder, O.W. (1853). Plantae Muellermanae. Beitrag zur Flora Sudaustraliens, aus den Sammlungen des Dr. Ferd. Muller. Compositae. *Linnaea* 25:449-530.  
 Willis, J.H. (1973, not 1972). 'A Handbook to Plants in Victoria 2, Dicotyledons.' (Melbourne University Press: Melbourne). p. 699.