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Abstract


Introduction

Lectotypification of the names of one Restionaceae species published by Dixon and Meney (Dixon et al. 1993) and nine Restionaceae species published by Meney et al. (1996) is necessary as all of the type specimens cited in these two papers appear to have been lost. A lectotype is selected for the following eight names, for which no holotype or isotype can be found: Harperia ferruginipes Meney & Pate, Hypolaena robusta Meney & Pate, Desmocladus glomeratus K.W.Dixon & Meney, Lepidobolus basiflorus Pate & Meney, Lepidobolus spiralis Meney & K.W.Dixon, Leptocarpus crassipes Pate & Meney, Loxocarya albipes Pate & Meney and Onychosepalum microcarpum Meney & Pate. An illustration is designated as the lectotype for Loxocarya magna Meney & K.W.Dixon and for Restio isomorphus K.W.Dixon & Meney. Since their original description, Restio isomorphus has been transferred to Chordifex B.G.Briggs & L.A.S.Johnson and Leptocarpus crassipes to Meeboldina Suess. (Briggs & Johnson 1998).

In the protologue of each of these names only the holotype and isotype(s) were cited, although it is evident that other collections were made by the authors. In each case an illustration by E. Hickman, showing features of both male and female plants, was included in the protologue. These illustrations were subsequently also published in the excellent book Australian rushes: biology, identification and conservation of Restionaceae and allied families (Meney & Pate 1999).
The original citations indicate that type specimens are housed at K, KPBG, PERTH and SYD. The reference to SYD was intended to be to the National Herbarium of New South Wales (NSW) rather than the University of Sydney Herbarium (SYD). One author of the relevant papers (K. Dixon pers. comm.) confirms that despite comprehensive searching, the cited types for most of the species have not been located at PERTH, KPBG or UWA. Likewise, isotypes cited as housed in K and SYD [NSW], cannot be found.

For those names for which both the holotype and the cited isotype(s) are no longer extant, and no other specimens were cited in the protologue, the lectotype must be chosen (McNeill et al. 2006: Art. 9.10) from ‘among the uncited specimens and cited and uncited illustrations which comprise the remaining original material, if such exist’. Specimens that we consider to be original material have been located at KPBG (the place of work of K. Meney and K. Dixon), UWA (at J. Pate’s former Department) and NSW. The specimens at NSW were sent by these authors to B.G. Briggs and L.A.S. Johnson, who were then also studying Restionaceae. The curators of the KPBG and UWA herbaria have agreed to the transfer to PERTH of those specimens from their collections and they are here designated as lectotypes. Lectotypes at NSW were sufficiently ample to divide so that an isolectotype could be placed in PERTH. The locations of the lectotypes are indicated below.

The International Code of Botanical Nomenclature (Vienna Code) (ICBN, McNeill et al. 2006) states (Article 9.2, Note 2) that the original material includes ‘those specimens and illustrations (both unpublished and published either prior to or together with the protologue) upon which it can be shown that the description or diagnosis validating the name was based’. The original material also includes ‘isotypes or isosyntypes of the name irrespective of whether such specimens were seen either by the author of the validating description or diagnosis, or the author of the name’ (Art. 9.2 Note 2[c]). Uncited specimens may also be original material (Art. 9.10).

Ross (2002) argued that an illustration that forms part of the protologue is not original material unless it was used in the preparation of the validating description and we agree that the wording of Note 2 of Article 9.2 of the ICBN could be interpreted that way. We are, however, here following common practice, as endorsed by the acceptance of a proposal by Silva (1993), and reference in Note 2 of Article 9.2 to illustrations published with the protologue. Thus we have accepted that any illustration cited in the protologue of a name is original material of that name. Although not affecting the names lectotypified here, we note that the designation of an illustration as the type of a name was limited in the current ICBN to names published prior to 1 January 2007 (unless the provisions of Article 37.5 – mainly concerning microscopic organisms – apply). Although the Code permits an illustration to be designated as the lectotype of a name published prior to 1 January 2007, provided that no cited specimens are extant, we consider that specimens should be given priority over illustrations and so we have only designated an illustration as the lectotype of a name if we could not locate any uncited specimens.

In the two cases where an illustration is designated as the lectotype, we have also specified a reference specimen housed at NSW, with a duplicate at PERTH, that is closely linked with the original type gathering, locality and collectors. These representative specimens have no formal status and are not being designated as epitypes. Should one of these illustrations prove to be ambiguous for application of a name at any point in the future, it is recommended that the representative specimen chosen here then be selected as an epitype. These representative specimens are believed to be from the localities where the holotypes were collected, although there are differences in the way the locations are cited.
Lectotypifications that designate original specimens

Desmocladus glomeratus


The lectotype was labelled as ‘Loxocarya “glomerata” (Dixon & Meney)’ in K.A. Meney’s hand and sent by her to Briggs and Johnson at NSW as an example of their new-found species (species of Desmocladus were mostly referred to Loxocarya at that time). It is thought to be from the gathering upon which the features of male plants, mentioned in the protologue, were based. Despite the difference in locality citation, we believe that the lectotype is from the type location, collected by the relevant authors on the same day as the female specimen originally designated as the type. The protologue states ‘The species is known from only one location in sand over laterite in heathland’ and cites a specific locality from north-east of Geraldton, which matches the locality of the lectotype rather than the vague locality of ‘Northampton’ used in the type citation. Desmocladus glomeratus is now known to be more widespread.


Harperperia ferruginipes

Meney & Pate, Telopea 6: 651–653, fig. 2 (1996). Type citation: ‘between Geraldton (28°46’S, 114°37’E) and Mullewa (28°32’S, 115°30’E), Meney & Pate KM9401, 19 April 1994 (holotype KPBG; isotype PERTH)’ [both lost]. Type specimen: ‘Known only from 3 closely located populations between Geraldton & Mullewa’, Western Australia, April 1994, J.S. Pate s.n. ♂, ♀ (lecto, here designated: PERTH 08027900 (ex UWA)).

This specimen, collected by one of the authors of the name, was held at UWA (the former department of J. Pate) until transferred to PERTH recently and so it is reasonable to assume that it would have been used in the preparation of the description. It was probably collected from the type locality.


Hypolaena robusta

Meney & Pate, Telopea 6: 653, fig. 3 (1996). Type citation: ‘near Badgingarra (30°24’S, 115°33’E), Meney & Pate KM 9092, 6 September 1990 (holotype KPBG; isotype PERTH)’ [both lost]. Type specimen: ‘Badgingarra (only known location)’, Western Australia, September 1990, J.S. Pate s.n. ♀ (+ ♂ fragment) (lecto, here designated: PERTH 08027897 (ex UWA)).

This specimen, collected by one of the authors of the name, was held at UWA (the former department of J. Pate) until transferred to PERTH recently and so would have been available to the authors when they were preparing the description.
Selected specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons]
B.G. Briggs 9381 & J. Pate ♂ (NSW, PERTH), 9382 ♀ (NSW, PERTH); 24 Aug. 2003, B.G. Briggs
9557a ♂ (NSW, PERTH, PRE); 30 July 1995, M. Hislop 56 (PERTH); 22 Sep. 2002, F. & J. Hort
1811 (PERTH); 21 October 2006, F. & B. Hort 2940 (PERTH); 1 Sep. 1999, M.E. Trudgen 20121 &
S. Firth (PERTH, NSW); 2 Oct. 1979, K.L. Wilson 2685 ♂ (NSW).

Lepidobolus basiflorus Pate & Meney, Telopea 6: 655–656, fig. 4 (1996). Type citation: ‘between
Geraldton (28°46' S, 114°37' E) and Mullewa (28°32' S, 115°30' E), Pate & Meney KM9402, 19 April
1994, (holotype KPBG; isotype PERTH)’ [both lost]. Type specimen: south-west of Tenindewa, Western
Australia [precise locality withheld for conservation reasons], May 1994, J. Pate s.n., ♂ (lecto, here
designated: NSW 363208, isoleclo: PERTH 07953151).

This specimen was sent to NSW in 1994 with advice of its proposed name given in correspondence
to B.G. Briggs and so is considered to be part of the gatherings studied by the authors prior to publication
of the name Lepidobolus basiflorus. The protologue states that L. basiflorus was then only known
from one population, so the lectotype is presumably from the type locality.

Other specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons]
5 Oct. 1995, B.G. Briggs 9362 & J. Pate ♂ (NSW, PERTH, NBG), 9363 ♀ (NSW); May 1994, J. Pate s.n. ♀ (NSW).

Hann National Park, east of Lake King (33°05' S, 119°40' E), Meney & Dixon KM293, 2 November
1990, (holotype KPBG; isotype PERTH)’ [both lost]. Type specimen: Lake King–Norseman road, Western
Australia [precise locality withheld for conservation reasons], 2 November 1990 [labelled as 4 March
1993], K. Meney 293 ♀ (lecto, here designated: NSW 267532; isoleclo: PERTH 07953410).

The localities of the holotype and lectotype are different descriptions of the same general location; the
same collection number is given, although the collections were labelled with different dates. K. Meney
has confirmed that there is actually only a single gathering involved, collected on 2 November 1990,
the duplicate having been sent to B. Briggs on 4 March 1993, hence the date on the lectotype sheet. It
was labelled in Meney’s hand ‘Lepidobolus contortus K. Meney & K. Dixon’, an earlier manuscript
name for the species; this was not used when the species was named but referred to the same feature
of its growth.

Other specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons]
4 Oct. 1995, B.G. Briggs 9349, J. Pate & K. Meney (NSW, PERTH, CANB, AD); cultivated, 2 Nov. 1990,
K. Meney 3291 (NSW); 2 Sep. 1988, K. Meney & K. Dixon 814 (KPBG); 2 Nov. 1990, K. Meney &
K. Dixon s.n. (KPBG); 13 Nov. 1979, K.R. Newbey 6575 (PERTH).

Loxocarya albipes Pate & Meney, Telopea 6: 660–662, fig. 7 (1996). Type citation: ‘Wongan Hills
(30° 51' S, 116° 43' E). In a single small gravel pit 15 km W of Wongan Hills. Pate & Meney KM 9304,
10 August 1993 (holotype KPBG; isotype PERTH)’ [both lost]. Type specimen: gravel pit, east of Wongan
Hills on the Piawaning Road, Western Australia [precise locality withheld for conservation reasons],
October 1993, J. Pate s.n. ♂ (lecto, here designated: NSW 280360, isoleclo: PERTH 08027609).
A small tag on the lectotype is annotated in Pate’s hand ‘Adult plants from just outside the gravel pit. Better young fruits than earlier material.’ Also, the notes included on the NSW label ‘Rhizomes on ground surface, as the coarse gravel will not allow burial. Rhizomes wooly. Female.’ come from Pate’s field observations. The protologue records the species as known only from a lateritic gravel pit. The protologue and some of the following collections cite an incorrect location; K. Dixon confirms that the lectotype is from the type location. It was sent to NSW after Pate and Meney had studied the new taxon sufficiently to specify its distinctive features, but before the relevant name was published.

Other specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons] 5 Oct. 1995, B.G. Briggs 9353 & J. Pate ♂ (NSW, PERTH), 9354 ♀ (NSW, PERTH), 9355 ♀ (NSW); 23 Sep. 1999, M.J. Fitzgerald MJF 99/001 (PERTH); Oct. 1993, J. Pate s.n. ♂ (NSW); Apr. 1994, J.S. Pate s.n. ♂, ♀ (UWA).


Based on label information there appear to be two collections, however, correspondence with K. Meney has confirmed that there is actually only a single collection involved, made on 5 January 1991. A duplicate of this collection was sent to B. Briggs at NSW in 1992, hence the date on the sheet with K.A. Meney’s collection number of 913 at NSW, now with a portion at PERTH. The sheet at PERTH ex KPBG does not bear the Meney collection number and does not list Pate as the co-collector, and is thus excluded from being the holotype, however the label represents a deficiency of the hand-written notes on the sheet, and again, K. Meney confirms that it is part of the original (and single) gathering made of this taxon on this day by Pate and Meney, so it must also be considered an islectotype.

Selected specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons], 10 Nov. 2004, R.J. Cranfield & B.G. Ward WFM 233 (PERTH); 18 Mar. 1961, A.S. George 2323 (PERTH); 3 May 1991, N. Gibson & M. Lyons 633–636 (PERTH); 19 Jan. 1992, N. Gibson & M. Lyons 804 (PERTH); no date, J.S. Pate s.n. ♂ (UWA).

Onychosepalum microcarpum Meney & Pate, Telopea 6: 664, fig. 9 (1996). Type citation: ‘Gingin (31° 21’ S, 115° 54’ E) to Cataby (30° 45’ S, 115° 33’ E) Meney & Pate KM 9091, 6 September 90 (holotype KPBG; isotype PERTH).’ [Both lost]. Type specimen: west of Brand Highway, Western Australia [precise locality withheld for conservation reasons], September 1990, K. Meney s.n. ♂ (lecto, here designated: PERTH 08027935 (ex KPBG); islecto: PERTH 08027927 (ex KPBG)).

There are three sheets of specimens that appear to be original material, one housed until recently at UWA and the other two at KPBG. All would have been available to the authors when preparing their description of the species. The locations are differently described but both are consistent with the type locality. The sheets selected as lectotype and islectotype are a gathering of male plants with more accurate locality information than the Pate s.n. collection from Cataby listed below.
Other specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons]

Lectotypifications that designate illustrations


The representative specimen listed below is from the same broad location as the type collection.


Selected specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons]


The protologue states that Loxocarya magna was then only known from two small populations at Scott River and Ruabon. The representative specimen is from one of these sites. The different latitude and longitude coordinates given are not surprising with coordinates compiled from maps.


Selected specimens examined. WESTERN AUSTRALIA: [localities withheld for conservation reasons]
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References


