

Nomenclatural notes on Polygonaceae in Australia

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Abstract

Wilson, Karen L. (National Herbarium of New South Wales, Royal Botanic Gardens, Sydney NSW 2000, Australia) 1996. Nomenclatural notes on Polygonaceae in Australia. *Telopea* 7(1): 83–94. Lectotypes are designated for *Polygonum dietrichiae*, *P. elatius*, *P. hydropiper* forma *ciliare*, *P. lanigerum*, *P. strigosum*, *Rumex brownii*, *R. clementii*, *R. drummondii*, *R. dumosus*, *R. halophilus*, and *R. muelleri*. Typification is discussed for *Rumex acetosella*, *Polygonum strigosum* var. *glabratum*, *Rumex bidens* and *R. oxysepalus*. *Rumex alcockii* is here regarded as a synonym of *R. brownii*. The known history of introduction to Australia of *Acetosa vesicaria* and its subsequent spread is discussed.

Introduction

Preparation of a treatment of the family Polygonaceae for the 'Flora of Australia' necessitates various lectotypifications and nomenclatural notes being published in advance of that treatment. In addition, comments are made on the spread of the naturalised weedy species *Acetosa vesicaria*. Names are dealt with in alphabetical order except for a few synonyms that are under the currently accepted name where that is also being discussed.

In the following discussions, it is to be understood that, except where I have noted otherwise, all specimens have been examined by me, that the specimen selected as a lectotype accords with the description in the protologue, and that the specimen is in reasonable condition.

Acetosa

Acetosa vesicaria

Acetosa vesicaria (L.) A. Löve, Rit. Landbun. Atvinn. Hask. Reykyavik ser. B, 3: 108 (1948); *Rumex vesicarius* L., Sp. Pl.: 336 (1753).

Rumex clementii Domin, Bibl. Bot. Heft 89: 614, pl. 20, fig. 1–3 (1921).

Type citation: 'Nordwest-Australien: zwischen Ashburton- und De Gray River, E. Clement.'

Type: Western Australia: N.W. Australia, inter fl. Ashburton et De Gray Rivers, E. Clement, [no date, c. 1899]; lecto (here designated) PR 526276; probable isolecto K.

Domin based *Rumex clementii* on a collection of the introduced species *Acetosa vesicaria* (L.) A. Löve — also known as *Rumex vesicarius* L. if a broad view is taken of the genus *Rumex*. The PR sheet of this collection is chosen as lectotype since it bears Domin's new name in his own script. The K sheet lacks manuscript annotations by Domin but bears the same collecting information as that in PR.

Acetosa vesicaria is native from North Africa to Pakistan. As with many weedy species, the history of its introduction to Australia is poorly documented. The limited range of collections gives a very poor record of the spread of what is now a common naturalised weed in arid and semi-arid Australia. Rechinger (1984: 77) speculated that the species was introduced in the latter half of last century with camels. However, there is no evidence for this. Indeed, various species are said to have been introduced in the stuffing of camel saddles but supporting evidence is lacking for most of them. Rechinger suggested as an alternative in the same paper (1984: 87) that this species was introduced to Australia only 'during the past 50–60 years' but the available specimens suggest that this is an under-estimate of its date of introduction. The species was in cultivation in the Sydney area by 1902 (specimen in NSW), and would have been popular in arid Australian settlements as a colourful, annual ornamental. It was also regarded as good fodder for sheep (Morris 1966: 53) in those dry areas. The papery persistent fruiting perianth would aid dispersal.

The earliest known naturalised specimens come from Western Australia. The collection made by Dr Emile Clement (the type of *Rumex clementii*) may be the earliest made here — there is no date of collection given but the label of the Kew specimen records that it was purchased by Kew in August 1900. Clement apparently visited Western Australia from England and collected in the north-west in the period 1897–1899 (Sharr 1988). The first western record with definite date is that of J.H. Maiden, who collected the species in or near Kalgoorlie in 1909 (specimen in NSW), and in 1913 it was collected at Mt Morgan. This suggests that it was probably widespread in inland south-western Australia by then, although it was not listed for the State by Gardner (1925, 1930).

The first naturalised collection from eastern Australia was made in or near Broken Hill in 1918 (specimen in NSW). It seems likely that the species had been in the Broken Hill area for some years since it was well-established there by 1921, in which year Morris (on label on specimen in NSW) reported it to be 'growing profusely in many places this season after the good rains in January'. Morris (1966: 53) stated that it 'first appeared in 1918' but his comment in 1921 about its wide occurrence then suggests that it had been in the district for more than a few years. There is a collection made in or near Cobar in 1939 (specimen in NSW), and later collections indicate that it was widespread but probably sporadic in inland New South Wales by about 1970.

The first collection that I have seen from Central Australia was made in Alice Springs in 1954 (specimen in NSW), with the comment added by the collectors that it was 'said to be introduced from Broken Hill'. Anecdotal evidence suggests that it was taken to Alice Springs from Broken Hill in 1935 as a garden plant by a Mrs Webb (King 1981: 52).

In South Australia, Black (1929: 697) listed it, as *Rumex roseus*, amongst various alien species that had 'appeared here and there near settlement and usually as escapes from gardens or cultivation'. Twenty years later he (Black 1948) regarded it as fully naturalised and included it in the main text of his 'Flora of South Australia' as having been growing 'for some years near Blinman'. Since then it has spread to the extent that Specht (1972) wrote of it having 'become a tourist attraction in the Flinders Ranges, as well as a favourable sheep-feed on hills and flood-plains'.

Acetosella

Acetosella vulgaris

Rumex acetosella L., Sp. Pl.: 338 (1753); *Acetosella vulgaris* Fourr., Ann. Soc. Linn. Lyon, ser. 2, 17: 145 (1869).

Type: LINN 464.41; lecto (Löve 1983: 161, 164, as 'LINN 22').

Fourreau gave this species a new name in his segregate genus *Acetosella*, thereby avoiding the tautonym that would result from using Linnaeus' epithet in this genus. The authority for Fourreau's name has at times been cited as '(Koch) Fourr.', apparently on the assumption that Fourreau (1869) based his name on *Rumex acetosella* [var.] α *vulgaris* Koch (1837: 616). However, Fourreau's text does not indicate any awareness of Koch's name, merely citing '*Rumex acetosella* L.' as though it were a synonym of his new name. This is in contrast to new combinations in his publication, where he indicates in parentheses the authors of the basionyms.

There are two sheets in the Linnean Herbarium in London (LINN) relevant to the typification of the name *Rumex acetosella*, each of which has been chosen as lectotype by different recent authors. The first, LINN sheet 464.41, was chosen by Löve (1983). Although Löve does not cite the full LINN sheet number as given in the Savage catalogue to the herbarium (he cites it only as 'LINN "22"'), his intention is clear, because this is the only sheet of *Rumex* sens. lat. that is annotated solely with the number '22' (the number was written by Linnaeus, according to C. Jarvis, pers. comm., indicating that this should be accepted as original Linnaean material) and because it bears two specimens as stated by Löve. The second sheet, LINN 464.38, was chosen as lectotype by both Rechinger (1984: 85) and den Nijs (1984: 51, 52). This sheet is annotated '*Acetosella* 22' and bears three plants, a male and two immature females according to den Nijs. The lectotypification by Löve is accepted here since it was the first and is not in conflict with the protologue.

Persicaria

This genus has often been included in *Polygonum* sens. lat. and therefore the basionyms of all the names mentioned below are in *Polygonum*. However, recent studies (notably those by Haraldson (1978) and Ronse Decraene & Akeroyd (1988)) have pointed out the considerable differences between these two genera, so *Persicaria* will be recognised, and *Polygonum* used in the strict sense, in the 'Flora of Australia'. Wilson (1988) discussed the segregate genera in Australia and elsewhere, giving a key to the genera.

Polygonum dietrichiae

Polygonum dietrichiae Domin, Bibl. Bot. 89, 1: 613 (1921).

Type citation: 'Queensland, angeblich Brisbane River, A. DIETRICH No. 1495, 1138.'

Type: Queensland: prope Brisbane River, A. Dietrich 1338, 1863–1865; lecto (here designated) PR 526269.

Residual syntype: Queensland: prope Brisbane River, A. Dietrich 1495, 1863–1865 (PR, mounted on same sheet as the lectotype).

Domin based this name on two very similar specimens with immature flowers. Domin suggested that the specimens might be hybrids between *Polygonum articulatum* (= *Persicaria attenuata*) and *Polygonum subsessile* (= *Persicaria subsessilis*). Morphological features suggest to me that they are indeed a hybrid involving *Persicaria subsessilis*, but that the other parent is *Pers. orientalis*. The combination of leaf shape, petiole length, and cilia and hair types is intermediate between these two species. There is no green limb on the ocreas but leaf shape and hair types suggest *Pers. orientalis* as the second parent rather than *Pers. attenuata*. I have seen no other material matching these two specimens. *Dietrich 1338* is chosen as lectotype because it is the slightly better specimen.

Persicaria elatior

Polygonum elatius R. Br., Prodr.: 419 (1810); *Persicaria elatior* (R. Br.) Soják, Preslia 46: 153 (1974).

Type citation: 'J.'

Type: New South Wales: Hawkesbury [River] near the first branch, *R. Brown* (Britten 3001 — changed on sheet and in catalogue from 2301), Dec 1804; lecto (here designated) BM; isolecto BM.

There are two sheets in BM that can be associated with *Polygonum elatius*. They bear specimens that probably came from the same collection, and both fit the protologue. However, only one sheet has a manuscript label written by Brown (details cited above under Type) and that sheet is therefore chosen as the lectotype. The other sheet is one of those selected by Brown for the Public Collection (Stearn 1960) and as usual for such sheets lacks an original Brown label. It is not in its original form; the specimen and its blue backing paper have been glued to a more modern white sheet, together with a piece of blue paper bearing the annotation (in an unknown hand) that is usually found on the reverse of Public Collection specimens: 'N. Hollandia, Pt Jackson, Mr Brown'.

Persicaria hydropiper

Polygonum hydropiper forma *ciliare* Domin, Bibl. Bot. 89, 1: 612 (1921).

Type citation: 'Süd-Queensland: am Logan River (DOMIN III.1910).'

Type: Queensland: apud fl. Logan River, *K. Domin*, Mar 1910; lecto (here designated) PR 526259 (*Domin* 3646); isolecto PR 526258 (*Domin* 3645).

There are two sheets in PR labelled with the collection details given in the protologue. Despite the separate Domin numbers (apparently added back in PR, with a stamp), these sheets appear to be from the same collection rather than separate collections. *Domin* 3646 (PR 526259) is here designated as the lectotype because it is a larger specimen in somewhat better condition than the other. The material on both sheets is slender and small-fruited for *P. hydropiper*, as is most of the tropical material of this species. Danser (1927) distinguished the tropical material from the temperate (typical) material of this species on the basis of the former being smaller, more slender plants with slightly longer cilia on the ocreas, leaves more densely hairy on abaxial nerves, nut and perianth shorter, perianth more densely gland-dotted, and with even the bracts, inflorescence branches and stems occasionally gland-dotted. However, these distinctions are not as clearcut as suggested (at least in Australia; for example, small-fruited plants are found in Victoria), and hence no infraspecific taxa are recognised here.

Polygonum lanigerum

Polygonum lanigerum R. Br., Prodr.: 419 (1810); *P. lapathifolium* var. *lanigerum* (R. Br.) Moore & Betche, Handbook Fl. New South Wales: 119 (1893); *P. lapathifolium* subsp. *lanigerum* (R. Br.) Danser, Nederl. Kruidk. Arch. 1931: 105 (1931); *Persicaria lanigera* (R. Br.) Soják, Preslia 48: 153 (1974).

Type citation: 'J.'

Type: New South Wales: Port Jackson, in aren[osis] etc prope Hawkesbury [River], *R. Brown* (Britten 3003 [changed on sheet from 2303]), Dec 1804/Jan 1805; lecto (Akeroyd 1987: 254) BM.

Akeroyd (1987) effectively lectotypified *Polygonum lanigerum* on the sheet bearing the Britten number although he used the word 'type' rather than 'lectotype' since he

apparently regarded the type as consisting of two duplicate sheets. However, there are in fact three sheets that are potential type material, all differing in their label information although the actual specimens are similar and could have come from the same source. The lectotype is the only sheet bearing a label written by Brown, as well as the standard blue 'Iter australiense' label annotated as Britten number 3003. The two dates on the Brown label are interpretable as the date of collection, followed by the date on which Brown prepared his manuscript description of the species (E. Groves and D. Moore, pers. comm.). The other two sheets in BM may be isolectotypes but bear less detailed handwritten labels (none written by Brown). One of the two sheets is labelled 'Polygonum tomentosum/Port Jackson' by Dryander; the other is similarly labelled but is also annotated 'Nova Hollandia, Port Jackson, Mr Brown' in an unknown hand. The latter specimen is probably the material selected for the Public Collection (Stearn 1960).

I regard this name as a synonym of *Persicaria lapathifolia*. Woolly-leaved specimens of *Pers. lapathifolia* have been separated as *Pers. lanigera* at various times. Bentham, for example, treated this as a distinct species, but it seems to be a sporadic variant not worth recognition (Wilson 1990: 623) — the same plant may bear both woolly and non-woolly leaves, or leaves may be woolly on only the abaxial surface. The same conclusion was reached by Cialdella in Argentina (Cialdella 1989: 201).

Persicaria strigosa

Polygonum strigosum R. Br., Prodr.: 420 (1810); *Tracaulon strigosum* (R. Br.) E. Greene, Leaflets Bot. Observ. Criticism 1: 22 (1904); *Persicaria strigosa* (R. Br.) H. Gross, Bot. Jahrb. Syst. 49: 308 (Jan 1913); *Truellum strigosum* (R. Br.) Soják, Preslia 46: 149 (1974).

Type citation: 'J. D.'

Type: New South Wales: Port Jackson and Hunters River [= present-day Williams River], *R. Brown* (Britten 2997), 1802–05 ; lecto (here designated): BM (right-hand specimen on sheet, lying below the Brown label annotated 'Port Jackson and Hunters River'; isolecto BM.

There are three sheets in BM that should be considered in typifying the name *Polygonum strigosum*. The most fully labelled and therefore most readily identified specimen is Britten number 2997, which Park (1968) chose as lectotype in the following words: 'TYPE: AUSTRALIA. NSW: Port Jackson, 1802–5, *Brown s.n.* (three sheets at BM and one at K; one with no. 2997 at BM has been designated as type. This sheet includes six individuals from two different localities, and one of them from Port Jackson is here designated as LECTOTYPE'.

This statement is inadequate as a lectotypification, because neither in his publication nor on the sheet in BM did he indicate which of the six specimens on the sheet no. 2997 he was choosing as lectotype. Park's reference to sheet no. 2997 can be accepted as the initial step in the lectotypification process, which is here completed by clear indication of which specimen on that mixed sheet is the lectotype.

Sheet no. 2997 bears six individual specimens of the same taxon and four labels, but there is no unequivocal association between the specimens and labels. In the lower left-hand corner is a printed blue 'Iter australiense' label bearing the Britten number 2997. In the upper corners are two Robert Brown field-labels; that in the upper left annotated 'Port Dalrymple/Jan 1804', that in the upper right annotated 'Port Jackson and Hunters River'. The fourth label, annotated 'Polygonum aculeatum' in Dryander's script, lies on the right, just below the Brown label.

The specimen on the right-hand side of the sheet lies below the 'Port Jackson and Hunters River' label and the Dryander label, and is clearly distinguished from the

other five specimens by its larger leaves. It is this specimen that I am treating as the lectotype. The other five specimens are all of similar facies, with smaller leaves than the lectotype, and could be construed as belonging to the left-hand label ('Port Dalrymple/Jan 1804'). However, this species is not known to occur in Tasmania so the left-hand label is probably an admixture from some other collection. It should be noted that Brown's locality 'Hunters River' actually refers to the present-day Williams River rather than the nearby Hunter River (Vallance 1990: 66, 83).

Besides this sheet there are two others, here regarded as probable duplicates of the specimen chosen as lectotype, despite their lesser labelling. One sheet bears only a label in Dryander's hand, '*Polygonum aculeatum*'. The other sheet is apparently a re-mounted specimen from the Public Collection, comparable to that discussed under *Pers. elatior*, with part of the original blue sheet and its attached specimen glued to a new backing sheet, and bearing a blue label 'N. Hollandia, Pt Jackson, Mr Brown'. The several specimens on each of these sheets are morphologically like that designated here as lectotype and could have come from the same collection.

Polygonum strigosum* var. *glabratum

Polygonum strigosum R. Br. var. *glabratum* Domin, *Bibl. Bot.* 89, 1: 614 (1921).

Type citation: 'Nordost-Queensland: sumpfige Stellen bei Harveys Creek (DOMIN I.1910).'

Type: Queensland: distr. Cairns: apud rivulum Harveys Creek, *K. Domin*, Jan 1910; syns: PR 525271 (*Domin* 3658), 526272 (*Domin* 3659).

This name is based on two Domin specimens (which are probably duplicates) that may be either *Persicaria dichotoma* (Blume) Masamune or *Pers. dichotoma* X *Pers. strigosa* — their morphology suggests the latter, being rather intermediate. No lectotype is chosen, pending further study in the field to elucidate the status of these and a few other specimens. Despite the different numbers (not given by Domin in the field but added to the sheets by an unknown person back in PR), these specimens are very similar and probably came from the same source.

Rumex

Rumex bidens

Rumex bidens R. Br., *Prodr.*: 421 (1810).

Type citation: 'D.'

Type: Tasmania: Port Dalrymple, *R. Brown* (*Britten* 2308 [altered to 3008 in *Britten's* catalogue]), Jan 1804; lecto (Rehinger 1984: 91, as 'R. Brown, *Iter Australiense* 2308, 1802-05') BM; isolecto BM.

The name *Rumex bidens* is based on Robert Brown material from Tasmania. There are two relevant sheets in BM. Rehinger (1984) did not specifically state his type citation to be a lectotypification but it is here accepted as such since he did clearly indicate as 'typus' the only sheet in BM labelled as *Britten* number 2308. Besides this sheet, there is also in BM a sheet from the Public Collection set aside by Brown (Stearn 1960). This second sheet bears a label written probably by Dryander, '*Rumex bidentatus* Port Dalrymple', and is annotated on the back of the sheet 'Ins. van Diemen/Port Dalrymple, Mr Brown'; it is probably from the same fruiting collection as *Britten* no. 2308.

R. muelleri Meisn. in A.P. de Candolle, Prodr. 14: 61 (1856).

Type citation: 'Circa Melbourne Australiae Felicis (Dr. Ferd. Müller!) R. Drummondii Müll., (non Meisn.) ... v.s. comm. a cl. Sonder.'

Type: Victoria: ad fl. Yarra, prope Melbourne, *F. Mueller*; lecto (here designated) NY; probable isolecto G-DC n.v., microfiche 14-61-86.

Rumex muelleri is a synonym of *R. bidens*. It is based on material collected near Melbourne by Mueller. The lectotype sheet in NY is stamped as having been in Meisner's own herbarium and is chosen as lectotype because it bears good material that fits the protologue and it is clearly annotated by Meisner as representing his taxon *R. muelleri* ('*Rumex mülleri* nob. (No. 17. Aug. 54)/Misit am Sonder Jul 1854'). The original label was handwritten by Mueller, who named the specimen as '*R. drummondii* Meisner'; Meisner has amended this to 'Ferd. Müller non nob. [nobis]'. It is a fruiting specimen. Also on this sheet is a small packet containing a fragment of the type number of *Rumex drummondii*, q.v.

There is a similar sheet labelled *R. muelleri* in G-DC that is probably an isolectotype, but it is slightly less mature and it differs in having a printed 'Plantae Müllerianae/Nov. Holl. meridionale' label, with the only handwritten details on the label (written by Mueller) being '*Rumex drummondii* Meisn./ad fluv. Yarra/1854'. The standard *Prodromus* label giving the species reference (volume-page-species' number) is annotated 'R. Müllerii nob.', apparently indicating that Meisner had examined and annotated this material. However, this is not certain because the annotation is not in Meisner's usual script and was probably made by someone working with de Candolle (H. Burdet, pers. comm.). The sheet is regarded as no more than a probable isolectotype because it also does not mention any connection with Sonder.

There is a sheet in K with the same collecting details as the lectotype of *R. muelleri*, but it has not been determined by Meisner nor is it labelled as having come from Sonder's herbarium, so it probably has no type status.

Rumex brownii

Rumex brownii Campd., Monogr. Rumex: 64, 81 (1819).

Type citation: 'Ad portum Jackson' [Port Jackson], *R. Brown*.

R. fimbriatus R. Br., Prodr.: 421, non Poir. (1804).

Type citation: 'J.'

R. brownianus Campd. ex J.A. Schultes & J.H. Schultes, Syst. Veg. 7, 2: 1395 (1830); nom. illeg. vel sphalm.?

Type citation: 'Ad port. Jackson.'

Type (for all three names): New South Wales: Port Jackson, *R. Brown*, Britten 3007, 1803; lecto (here designated) BM; probable isolecto BM, K.

Typification for all three names above is based on Robert Brown material. In BM, there are four collections that could have been used by Brown in describing this species.

The best documented sheet is here designated as lectotype. It is a fruiting specimen, in good condition, on a sheet with a blue 'Ter australiense' label, annotated as no. 3007 in the Britten sequence, and with a label written by Brown giving the collection details cited above.

In BM, there is also a sheet (bearing a poor specimen) probably from the Public Collection with a printed label 'Port Jackson' with a label handwritten probably by Dryander, 'Port Jackson/Rumex plebejus'. It is impossible to check the back of this blue sheet for the characteristic Public Collection annotation (Stearn 1960) because it has been cut down and glued to a white sheet. However, this specimen seems to have come from another, formerly mixed sheet, which still bears a specimen collected apparently by Dallachy and Goodwin near the Darling River (sent by Mueller) and with the annotation that a collection 'N. Hollandia, Pt Jackson, Mr Brown' (the standard style of annotation on Public Collection sheets) has been removed to a separate sheet. There are also two sheets collected by Banks and Solander, one with 'Botany Bay' written on the reverse of the sheet, the other without locality; neither is annotated by Brown.

It is not known what material Campdera saw. He has not annotated any of these specimens in BM. It is possible that Brown had sent him a specimen, as he did to other botanists at times, but the whereabouts of Campdera's herbarium is unknown.

It is not clear whether *R. brownianus* was intentionally published as a new name or was a slip of the pen for *R. brownii*. The latter seems likely since the text in *Syst. Veg.* refers to Campdera's protologue, but it is a matter of little importance since the application of the name is clear.

R. alcockii Rech. f., *Nuytsia* 5: 109 (1984), **synon. nov.**

Type: South Australia: Eyre Peninsula – Gawler Ranges, c. 32 km N Minnipa, P.G. Wilson 526, 16 Oct 1958; holo AD.

The name *Rumex alcockii* is here regarded as a synonym of *R. brownii*. Although the hooked teeth and apex of the valves make *R. brownii* a distinctive species, it is also a variable species that needs further study. Rechinger (1984) distinguished plants from the Eyre Peninsula – Flinders Ranges areas of South Australia as *R. alcockii* on the basis of their more vigorous growth, their short, thick leaves (the lower ones on average being only 2.5–3 times as long as broad), their more numerous flowers per cluster, and their larger fruiting valves. However, the distinctions are not as clearcut as he suggested, and plants with those characteristics can be found elsewhere in eastern Australia. In South Australia there are differences in response to herbicides (C.R. Alcock, pers. comm.), suggesting that there are at least differences in growing patterns that should be investigated further. Rechinger (1984: 107) also suggested that low-growing plants on the Yorke Peninsula and Kangaroo Island, S.A., and on the Furneaux Group in Bass Strait might represent a separate form (low-growing plants 5–20 cm high, with unbranched, nearly leafless flowering stems; small, thickish basal leaves, linear or obovate, often constricted below the middle and with a cordate base). However, as with the type of *R. alcockii*, the fruits on these specimens hardly differ from those of typical *R. brownii* and so no taxonomic distinction seems warranted without further study.

Rumex drummondii

Rumex drummondii Meisn. in Lehmann, *Plantae Preiss.* 2: 272 (1848).

Type citation: 'Swan River, Drummond, coll. III. No. 207 et? (folia tantum inferiora) No. 291.'

Type: Western Australia: Swan River, *Drummond* 207 [sic]; lecto (here designated) NY (consisting of a few fruits in a packet mounted on the type sheet of *R. muelleri*, q.v.); possible isolecto NY (mounted on sheet with fragment of *R. brownii* collected by Lesson in the Blue Mountains of N.S.W.).

The name *R. drummondii* is here lectotypified on the only sheet that I have seen that has been annotated with that name by Meisner.

Rechinger (1984: 99) partially lectotypified this name by citing *Drummond 207* as the 'type' but he did not give any particular sheet as either holotype or lectotype, merely citing a sheet in MEL as 'iso'. There are sheets in various herbaria that bear the Drummond number 207 and the material is not mixed so far as seen, unlike some other Drummond collections. However, not all those sheets seen by me have been annotated by Meisner (nor is there any reason to expect this to be so); sheets in BM, G, K, NSW and TCD fall into this category, and that in MEL is likely to be the same. I have seen specimens annotated by Meisner only in NY and the lectotype specimen is therefore chosen from these.

In NY, there are two poor collections annotated by Meisner. The better is a fruiting branch annotated, on a blue label, by Meisner 'Swan River. Drummond n. 207! Fragm. ex hb. DC' but he has not obviously named it as *R. drummondii*. It is possible that the blue label does bear this name but most of the label's surface is obscured by a smaller white label glued down firmly. The white label refers to '*R. brownii*' and 'DC. 14. p.61.n.84' (species number of *R. brownii* in Candolle's *Prodromus*) and probably relates to the fragment of that species in the paper packet glued to the upper right-hand corner of the sheet; that material is labelled by Meisner (on the packet) as being *R. brownii* collected by Lesson from the Blue Mountains and coming from Kunth's herbarium. Since there is no clear annotation of this sheet as *R. drummondii* by Meisner, I have not chosen it as lectotype, despite its being a somewhat better specimen than the lectotype.

The other specimen of *Drummond 207* in NY, chosen here as lectotype, consists of a few fruits of *R. drummondii* in a paper packet glued to the upper right-hand corner of the sheet bearing the lectotype of *R. muelleri*, q.v. The source of the fruits is not indicated. The packet is annotated by Meisner with the name and collector's name and number. This is the only sheet that I have seen with the name '*R. drummondii*' written by Meisner and is therefore selected as lectotype despite its obvious shortcomings as a specimen.

There is a sheet in G-DC (microfiche 14-61-85) that bears a much better specimen than either of those in NY, bearing two fruiting inflorescences with a few cauline leaves remaining (all basal leaves have been lost). Its facies is certainly consistent with its being the source of the branch in NY, but it is not annotated in Meisner's usual script (H. Burdet, pers. comm.) so there is no indication of Meisner having seen this sheet. The sheet in TCD is very similar. These two sheets are the best examples of the collection *Drummond 207* that I have seen, and should therefore be consulted by future workers, in conjunction with the lectotype, if interpreting the taxon and its name.

The other collection cited by Meisner is *Drummond 291*, but he cited it with doubt since it consisted only of basal leaves and it is therefore not considered suitable as a lectotype. I have seen only one specimen labelled as *Drummond 291* — in BM. Rechinger (1935: 48) stated that he had seen specimens numbered thus in G-DEL and W and that they consisted of only the basal leaves of a *Rumex*. He thought that they probably represented *R. drummondii*. I consider that the specimen in BM might equally represent *Emex australis*.

Recent collections from the Manypeaks area of Western Australia (e.g. *Scott & Yeoh NSW 232313* and *Wilson 9056 & Frank*) named as *R. drummondii* differ slightly from the type collection *Drummond 207* in being less robust but the condition of the latter (especially in the vegetative parts) is not good enough to be clear whether two species are represented or one variable species, or whether hybridisation with another species (perhaps *R. tenax*, *R. dumosus* or *R. brownii*) is involved.

R. flexuosiformis Rech. f. is here treated as a synonym of *R. drummondii*, following Rechinger (1984). Rechinger originally separated *R. flexuosiformis* (based solely on the type collection) from *R. drummondii* on the basis of the former's fruiting pedicels being less thickened, its broader valves with the teeth longer and more spreading, and stems less rigid and branched not only in the uppermost third. The situation needs re-assessing when more adequate material is available.

Rumex dumosus

Rumex dumosus A. Cunn. ex Meisner in A.P. de Candolle, Prodr. 14: 62 (1856).

Type citation: 'In Nov.-Holl. orient. subtrop. (A. Cunningham!), Liverpool Plains et mont. Coeruleis (Lesson!) ... v.s. in h. Cunningh., DC., Kunth, soc. linn. Lond. et comm. a cl. Heward.'

Type: New South Wales: Liverpool Plains, A. Cunningham, [1825]; lecto (here designated) NY; probable isolecto K.

The type citation shows that Meisner used material from several sources in describing *Rumex dumosus*. I have not seen any specimen collected by Lesson in the Blue Mountains, but it is likely to have been in Kunth's herbarium that Meisner saw it. I have not searched for Kunth collections of this in B or P, nor did I see any duplicate of such a collection in NY. However, in NY I did see a fragment of a Lesson collection of *R. brownii* annotated by Meisner as having come from Kunth's herbarium, indicating this connection existed between Lesson and Kunth.

In NY, I have seen only two specimens that may have been seen by Meisner; neither is stamped as belonging to his own herbarium. One bears the old Columbia University Herbarium stamp (where Meisner's herbarium was kept before being incorporated in NY), and has a branch of a plant and one small label with 'R. dumosus/Liverpool Plains/1825' apparently written by Allan Cunningham. It was presumably collected by Cunningham on his sole collecting trip on the Liverpool Plains in May 1825 (McMinn 1970). There is no annotation by Meisner, so this specimen can only doubtfully be considered a syntype.

The other sheet in NY has no stamp indicating that it came from Meisner's herbarium, but it is a new sheet and the specimen (two inflorescence fragments of a Cunningham collection in a paper packet annotated by Meisner) may have been separated from another older sheet that was in his herbarium. I surmise this since sheets from Meisner's herbarium in NY often bear more than one collection, and I saw several sheets of Polygonaceae to which he had added a packeted fragment of another collection, for example, the sheet of *Rumex drummondii* (q.v.) that also bears a fragment of *R. brownii* collected by Lesson in the Blue Mountains and received by Meisner from Kunth's herbarium. The packet of the fragmentary specimen of *R. dumosus* is annotated by Meisner 'Rumex dumosus. Forming large round bushes/on Liverpool Plains. A. Cunningham in hb. Linn. Soc.'; Meisner has also written descriptive notes about the morphology of the specimen on the packet.

This means that the only specimen of *R. dumosus* in NY likely to have been seen by Meisner (as evidenced by his annotations) is this Cunningham fragment from the Linnean Society of London. The original sheet of this collection is now in K, having been donated by the Linnean Society in 1915 as stated on its printed label. It is the only Cunningham specimen from the Liverpool Plains in K, and is clearly labelled as coming from the Linnean Society; it is annotated by Cunningham 'Rumex dumosus forms large, round bushes on Liverpool Plains', as indicated by Rechinger (1984: 96).

Rechinger cited this sheet in K as holotype but it lacks any annotation by Meisner, and so cannot be taken as such. The fragment from this sheet in NY, annotated by Meisner, is here taken as lectotype. As with *R. drummondii*, the unsatisfactory nature of the lectotype specimen means that workers should consult the fuller 'parent' sheet as well as the lectotype in any future assessment of the application of the name.

Sheets in MEL and NSW (that sheet ex MEL) are annotated as having been collected on the Liverpool Plains by Cunningham in 1825. These are not annotated by Meisner but may belong to the same original collection as the lectotype.

In de Candolle's *Prodromus* herbarium in Geneva (G-DC), there is a fruiting specimen of *R. dumosus* (microfiche no. 14-62-88), a Cunningham collection labelled by the collector 'Rumex dumosus/Banks of Rivers/Interior. A.C.' This has not been annotated by Meisner.

In BM I have seen only one possibly relevant sheet, bearing a fruiting specimen and two labels: respectively 'A plant frequent on open plains as those of Liverpool and of the Country South of those vast levees. May 1826/861' and 'Cunningham NW Interior of NSWales 1826/Rumex dumosus'. This has not been annotated by Meisner, nor do the label data correspond well to the type citation in the protologue, so it is not regarded as syntype material.

Rumex halophilus

R. halophilus F. Muell., *Fragm.* 4: 48 (1863).

Type citation: 'Ad ripam limosam subsalinam fluminis Flinders River, ejus ostium versus. F.M. [Mueller].'

Type: Queensland: Flinders River, Mueller, [*Gregory Expedition*], 1855-56; lecto (here designated) K; isolecto TCD.

Mueller indicated in the protologue that he was basing *R. halophilus* on material collected by him from Flinders River. No original material has been found in MEL. There are specimens at K and TCD collected by Mueller on the Gregory Expedition, although these have not been annotated by him with his new species name. The specimen in K is annotated as *R. halophilus* by Bentham. This specimen is selected as lectotype; it is mounted on the same sheet as a specimen labelled in Mueller's hand as coming from 'Burdekin [River]' but without any collector being indicated.

This name is a synonym of *R. crystallinus* Lange.

Rumex oxysepalus

R. oxysepalus Meisn. in Lehmann, *Plantae Preiss.* 1: 625 (1845).

Type citation: 'In Australia occidentali. Herb. Preiss. No. 1357.'

Type: Western Australia: In Australia occidentali, *L. Preiss 1357*; syn LD (depauperate); also in B and LE fide Rechinger (1935: 48).

Meisner (1848) and Rechinger (1984) both suggested that the material on which *R. oxysepalus* is based is probably conspecific with *R. drummondii*, q.v. The only syntype that I have seen is in LD and it is in extremely poor condition. Therefore I would not like to draw that conclusion from this depauperate material since confirmation would result in the name *R. oxysepalus* replacing *R. drummondii*. Pending further study of the species found in south-western Australia, I continue to treat the name *R. oxysepalus* as being of dubious application.

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