
Typification of Six Robert Brown Brassicaceae Names from Arctic North America

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ABSTRACT. Typifications are made for six taxa in the Brassicaceae described by Robert Brown from plants collected in arctic North America. The taxa were published in his 1823 preprint *Chloris Melvilliana*, which in 1824 appeared as the botanical appendix to William E. Parry's *Supplement to the Appendix of Parry's First Voyage*. Lectotypes are selected for *Eutrema edwardsii* R. Brown, *Parrya arctica* R. Brown, *Parrya macrocarpa* R. Brown, *Platypetalum* R. Brown, and *Platypetalum purpurascens* R. Brown, and a neotype is selected for *Platypetalum dubium* R. Brown.

Between 1819 and 1820, William E. Parry (1790–1855), commander of H.M.S. *Hecla*, made his first journey to arctic North America in search of a navigable northwest passage from the Atlantic to the Pacific. During the summer of 1820, Parry and several members of the expedition made botanical collections on Melville Island, in the present-day Franklin District of the Northwest Territories, Canada, at 75°15'N, 110°00'W. Upon return from the voyage, Parry gave the specimens to Robert Brown (1773–1858) in London for identification. Parry asked for Brown to prepare their determinations in time for their inclusion as a botanical appendix to his official report of the journey. However, Brown was unable to give Parry a manuscript until late 1823, causing a delay in the publication of all the natural history studies. Parry's report was published in 1821 without the appendices as [A] *Journal of a Voyage for the Discovery of a Northwest Passage from the Atlantic to the Pacific*. When Brown finished the manuscript, he published a pamphlet-form preprint entitled *Chloris Melvilliana* (1823). This was a preprint to *A List of Plants Collected in Melville Island* (Brown, 1824), which appeared with minor revisions as *Appendix XI. Botany* to Parry's (1824) *Supplement to the Appendix of Parry's First Voyage*. Of the 117 taxa of angiosperms, bryophytes, lichens, and fungi accounted for, a total of 10 new genera, 1 new genus combination, 1 new subgenus, 49 new species, 4 new species combinations, and 2 new species names were proposed. Here, typifications are made for the six new taxa proposed in the Brassicaceae.

Eutrema R. Brown, Chlor. Melvill. 9. 1823. TYPE: *Eutrema edwardsii* R. Brown.

Eutrema edwardsii R. Brown, Chlor. Melvill. 9. 1823. TYPE: Canada. Northwest Territories: Melville Island, 1820, *John Edwards s.n.* (lectotype, selected here, BM). Syntype: Canada. Northwest Territories: Melville Island, 1820, *James Ross s.n.* (BM).

There are four different collections on the herbarium sheet historically referred to as the type of *Eutrema edwardsii*. Three in different states of maturity were collected by John Edwards, while the fourth was collected by James Ross. Since *Eutrema edwardsii* was named for John Edwards, and his material shows all the states of maturity that Brown described, they are selected as lectotype. The Ross collection is a syntype.

Parrya R. Brown, Chlor. Melvill. 10. 1823. TYPE: *Parrya arctica* R. Brown (lectotype, selected by Pfeiffer, 1874).

Parrya arctica R. Brown, Chlor. Melvill. 11. 1823. TYPE: Canada. Northwest Territories: Melville Island, 1820 (fr), *William E. Parry s.n.* (lectotype, selected here, BM). Syntypes: Canada. Northwest Territories: Melville Island, 1820 (fl), *James Ross s.n.* (BM); (fl) *Alexander Fisher s.n.* (BM); (fl) *John Edwards s.n.* (BM); (fr) *Edward Sabine s.n.* (BM); (fl) *Edward Sabine s.n.* (BM); (fl) *Anonymous collector s.n.*, but certainly either Parry, Ross, Fischer, Edwards, or Sabine (GH).

On the type sheet of *Parrya arctica*, there are six specimens (listed above) from the Parry (1819–1820) expedition. Since *Parrya* was named for William E. Parry, his specimen is selected as lectotype. The remaining syntypes of Ross, Fisher, Edwards, and Sabine have both fruiting and flowering material, which Brown also certainly examined while describing the species. A specimen at the Gray Herbarium previously identified as the isotype of *Parrya arctica* by Reed C. Rollins is recognizable as a syntype because the original label in Robert Brown's hand-

writing indicates that the specimens came from Parry's first voyage to Melville Island.

Parrya nudicaulis (L.) Regel in Radde, Bull. Soc. Nat. Mosc., XXXIV. 3. 176. 1861. *Cardamine nudicaulis* L., Sp. Pl. II: 654. 1753.

Parrya macrocarpa R. Brown, Chlor. Melvill. 12. 1823. TYPE: "Northwest coast of America: Sledge Island." U.S.A. Alaska: Sledge Island, 25 mi. W of Nome, off the southern coast of the Seward Peninsula at 64°29'N, 166°13'W, 5 Aug. 1778, David Nelson s.n. (lectotype, selected here, BM). Figure 1.

In 1778, Captain James Cook's third expedition ventured to what were at the time some of the northernmost points ever achieved in America. On 5 August 1778, David Nelson, a gardener from Kew who accompanied the expedition as a naturalist and plant collector, collected specimens on Sledge Island (Hultén, 1940). Inconspicuously inscribed on the back side of the type sheet of *Parrya macrocarpa* is a very telling statement: "Northwest coast of America: Sledge Island. Dav. Nelson." This clearly identifies this specimen that Brown used to describe *Parrya macrocarpa* as originating from the Cook expedition, with David Nelson as its collector. It is unfortunate, however, that a collection with such a rich history must be regarded as a later synonym of *Parrya nudicaulis* (L.) Regel.

Braya Sternberg & Hoppe, Denkschr. Königl.-Baier. Bot. Ges. Regensburg 1: 65. 1815.

Platypetalum R. Brown, Chlor. Melvill. 8. 1823. TYPE: *Platypetalum purpurescens* R. Brown, Chlor. Melvill. 9. 1823 (lectotype, selected here).

Braya purpurascens (R. Brown) Bunge ex Ledebour, Fl. Ross. 1: 195. 1842. Basionym: *Platypetalum purpurescens* R. Brown, Chlor. Melvill. 9. 1823. TYPE: Canada. Northwest Territories: Melville Island, 1820, James Ross s.n. (lectotype, selected here, BM). Syntypes: Canada. Northwest Territories: Melville Island, 1820, John Edwards s.n. (BM); Edward Sabine s.n. (BM); in a box labeled "Flora Arctica, Capt'n Parry's North Polar Voyage, spec. 11," William E. Parry? s.n. (BM).

Platypetalum dubium R. Brown, Chlor. Melvill. 9. 1823. *Braya purpurascens* var. *dubia* (R. Brown) O. E. Schulz, Pflanzenreich, 4, Fam. 105. 235. 1924. TYPE: Canada. Northwest Territories: Melville Island, 1820, in a box labeled "Flora Arctica, Capt'n Parry's 1st Voyage, spec. 12," William E. Parry? s.n. (neotype, selected here, BM).

Three specimens from the Parry expedition, all mounted on a single sheet, are enclosed in the type

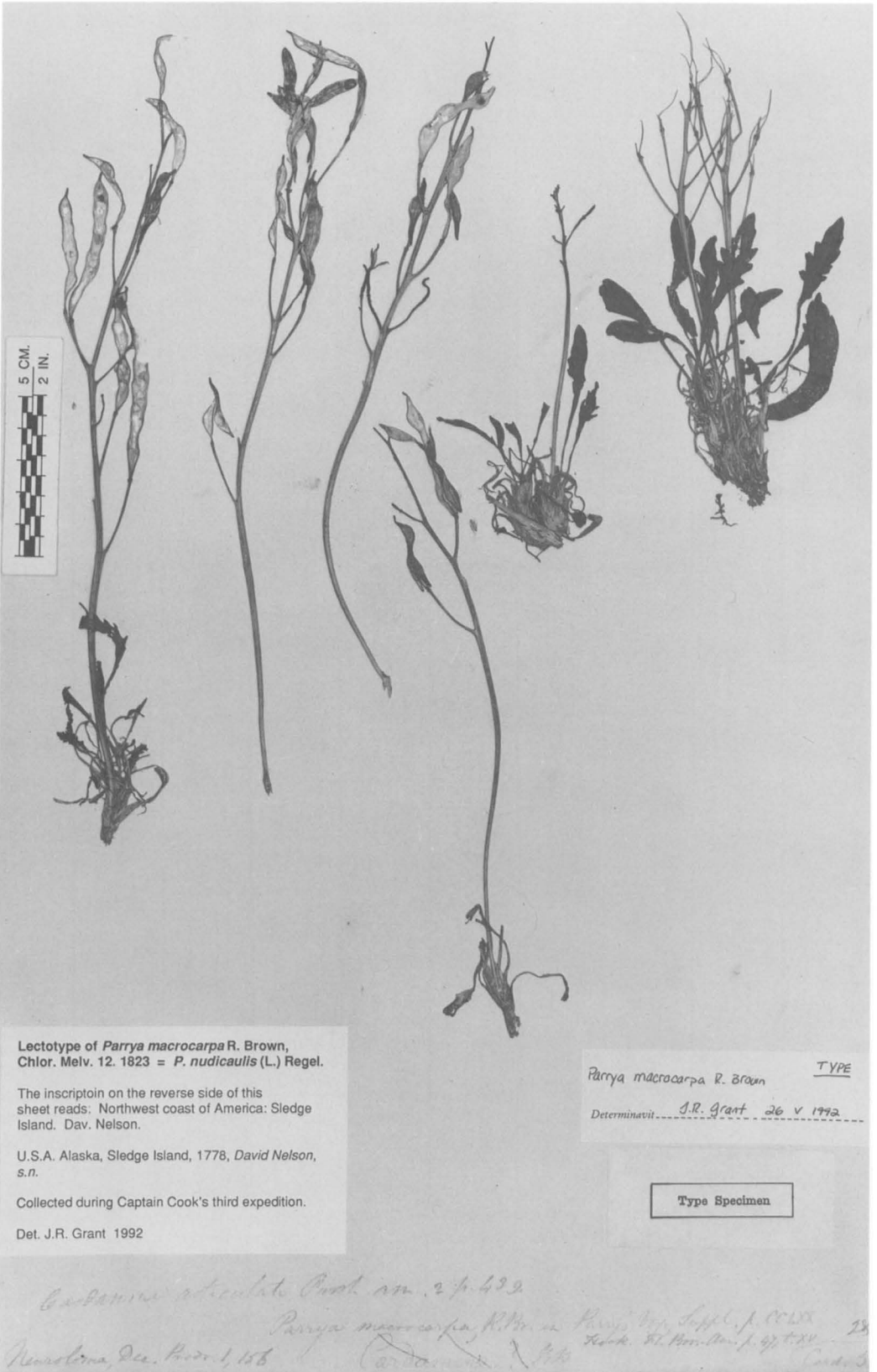
folder of *Platypetalum purpurascens*. These are separate collections made by John Edwards, Edward Sabine, and James Ross at Melville Island. Another specimen from Melville Island, which is also likely a syntype, but without collector data or identifiable handwriting, is in a box labeled "Flora Arctica, Capt'n Parry's North Polar Voyage." After examination of these specimens and their comparison to the description in *Chloris Melvilliana*, the Ross collection is selected here as the lectotype of *Platypetalum* and of *Platypetalum purpurascens*. The Ross collection consists of four flowering and two fruiting plants, the Edwards of two flowering plants, the Sabine of three flowering plants, and the Parry of one flowering plant. Since the description of *Platypetalum purpurascens* consists of descriptions of both flowering and fruiting material, the Ross collection, the only one with specimens of both states, is selected as lectotype.

A definitive type of *Platypetalum dubium* cannot be located. The only specimen at BM identified as *P. dubium* is not original material. First, the handwriting on the specimen labeled "Flora Arctica, Capt'n Parry's 1st Voyage, spec. 12" is not that of Robert Brown but an unknown hand. Second, and more importantly, the description of *P. dubium* in *Chloris Melvilliana* stated that the flowers are unknown for the species; that is, the plant was described as fruiting while this BM specimen is a single flowering plant. Therefore, a type of *P. dubium* has not been found, but this does not cause nomenclatural problems because *P. purpurascens* is selected as the lectotype of *Platypetalum*. However, I select a neotype for the species to place it in synonymy with *Braya purpurascens*. Since the above-mentioned specimen was at some point thought to be the type of *Platypetalum dubium*, for whatever reason, I here select it as the neotype of the species.

Acknowledgments. I thank the curators at The Natural History Museum, London (BM), for sending specimens for study, Roy Vickery in particular, and James L. Reveal and James R. Rundell for comments on and review of the manuscript.

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Lectotype of *Parrya macrocarpa* R. Brown,
 Chlor. Melv. 12. 1823 = *P. nudicaulis* (L.) Regel.

The inscription on the reverse side of this
 sheet reads: Northwest coast of America: Sledge
 Island. Dav. Nelson.

U.S.A. Alaska, Sledge Island, 1778, *David Nelson*,
s.n.

Collected during Captain Cook's third expedition.

Det. J.R. Grant 1992

Parrya macrocarpa R. Brown TYPE
 Determinavit *J.R. Grant* 26 v 1992

Type Specimen

Cassini articulata Cook an. 2 p. 432
Parrya macrocarpa, R. Br. in Parry's Voy. Suppl. p. 206
 Hook. Bot. Beechey p. 97, t. 24
Nardostema, Dec. Prodr. 1, 158
 Cardamine 2, 166

Figure 1. Lectotype of *Parrya macrocarpa* R. Brown.

Longitude 110°–112°W.) in the Year 1820; By the Officers of the Voyage of Discovery, Under the Orders of Captain Parry. With Characters and Descriptions of the New Genera and Species. W. Clowes, London.

- . 1824. A List of Plants Collected in Melville Island, by the Officers of the Expedition; With Characters and Descriptions of the New Species. Appendix XI Botany. *In*: W. E. Parry, Supplement to the Appendix of Captain Parry's Voyage for the Discovery of a North-west Passage, in the Years 1819–20. Containing an Account of the Subjects of Natural History. John Murray, London.
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Orders of William Edward Parry, R. N., F. R. S., and Commander of the Expedition. With an Appendix, Containing the Scientific and Other Observations. John Murray, London.

- . 1824. Supplement to the Appendix of Captain Parry's First Voyage. A Supplement to the Appendix of Captain Parry's Voyage for the Discovery of a North-west Passage, in the Years 1819–20. Containing an Account of the Subjects of Natural History. John Murray, London.
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