This article was downloaded by: [New York University]

On: 12 May 2015, At: 10:55

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number:
1072954 Registered office: Mortimer House, 37-41 Mortimer Street,
London W1T 3JH, UK

Transactions of the Botanical Society of Edinburgh

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/tped18>

III. Note on *Lilium canadense*, L., var. *puberulum*, Torr.

Robert Brown Ph.D.^a

^a Campst.

Published online: 01 Dec 2010.

To cite this article: Robert Brown Ph.D. (1873) III. Note on *Lilium canadense*, L., var. *puberulum*, Torr., Transactions of the Botanical Society of Edinburgh, 11:1-4, 147-148, DOI: [10.1080/03746607309467950](https://doi.org/10.1080/03746607309467950)

To link to this article: <http://dx.doi.org/10.1080/03746607309467950>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

Museum). About 1 inch in diameter. The specimen consists of a main stem and one of the branches into which it has forked. On the main stem the secondary spirals are 6 D, 11 S, 17 D. Divergence = $\frac{5}{28}$ (series, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{2}{11}$, $\frac{3}{17}$, $\frac{5}{28}$, &c.)—On the branch the secondary spirals are 8 S, 13 D. Divergence = $\frac{8}{21}$ (ordinary series, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{5}$, $\frac{3}{8}$, &c.)

E. Series, $\frac{1}{2}$, $\frac{2}{5}$, $\frac{3}{7}$, $\frac{5}{12}$, $\frac{8}{19}$, $\frac{13}{31}$, $\frac{21}{56}$, &c.

(13.) *Lepidodendron* (from Dr Rankin's collection). About $\frac{7}{8}$ inch in diameter. Secondary spirals 12 D, 19 S, 31 D. Divergence = $\frac{21}{56}$.

F. Series, $\frac{1}{3}$, $\frac{3}{10}$, $\frac{4}{13}$, $\frac{7}{23}$, $\frac{11}{36}$, $\frac{18}{59}$, &c.

(14.) *Lepidodendron elegans* (Possil Ironstone). About $1\frac{1}{4}$ inch in diameter. Secondary spirals 10 S, 13 D, 23 S, 36 D. Divergence = $\frac{18}{59}$.

(15.) *Lepidodendron* (Possil Ironstone). About $2\frac{1}{4}$ inches in diameter. Secondary spirals 23 S, 36 D, 59 S, 95 D. Divergence = $\frac{47}{154}$.

From the above it is evident that the phyllotaxis of *Lepidodendron* is extremely variable, as much so perhaps as that of those most variable plants, in this respect, the Cacti. It is also clear that what has been enunciated by Professor Houghton* as the law according to which the leaves of palæozoic plants were arranged—viz., that of alternate whorls—does not apply to these ancient Lycopods.

Lepidodendron aculeatum is noted by Naumann as exhibiting an $\frac{8}{21}$ arrangement. (Poggendorff, Annalen, 1842, p. 5.)

Professor Alexander Braun (Nov. Acta Ac. C.L.C. xv. 1, pp. 558–9), speaking of the excessive deviation from ordinary arrangements in Equisetaceæ (including Calamites), compares them in this respect with Lycopodiaceæ (including *Lepidodendron*), saying that in these two families “the utmost limits of the domain of all leaf arrangement appears to be attained.”

III. Note on *Lilium canadense*, L., var. *puberulum*, Torr.

By ROBERT BROWN (Campst.), Ph.D.

In the enumeration of Dr Bigelow's Californian collection, in the fourth volume of the “Pacific Railroad Surveys,”

Manual of Geology, London, 1866, pp. 243 and 245.

Professor Torrey notes a variety of *Lilium canadense*, distinguished by the stem and peduncles being minutely pubescent, the leaves broadly lanceolate, with the margin and nerves puberulous, the flowers few (2-7), largely pedunculated, the sepals markedly reflexed and purple spotted within. In the course of examining his own and the late Mr John Jeffrey's collection, Dr Brown has found specimens which correspond with Torrey's description, but the characters are by no means constant, nor are all found in one plant. In specimens of *Lilium canadense* gathered in Canada, the leaves were found quite as broad as any from North-West America; and in numerous specimens from Oregon, California, and British Columbia, the leaves were almost linear lanceolate. The pubescence is not a constant character, for while it was found in young plants, it was absent from old, and was not constant in either. Most probably it is caducous. In all likelihood, there is only one form of *Lilium canadense* found over the whole American continent, from the Atlantic to the Pacific, and any varieties (such as those mentioned by Torrey, *l.c.*, and Wood in "Proc. Acad. Nat. Sciences of Philadelphia," 1868, p. 166) are merely local, and the result of habitat, age, or other circumstances, which do not give the character derived therefrom any specific value. Specimens, and a coloured drawing of the living plant taken in North-West America, were exhibited.

IV. *Report on the Open-Air Vegetation at the Royal Botanic Garden.* By MR M'NAB.

Since the last meeting of the Botanical Society (March 9), the weather has been excessively dry, accompanied with north-easterly winds. On fifteen mornings the thermometer has been at or below the freezing point, the lowest markings being on the 15th, 17th, and 29th of March, and on the 7th, 8th, and 11th of April, falling respectively to 22°, 28°, 26°, 28°, 25°, and 24°.

It is remarkable that the plants selected for the purpose of recording the dates of flowering have this year bloomed within a range of rather less than two months, viz., between February 13 and April 9. The period of flower-