

expected, many species have declined and nine appear to have gone into the 'rare' category (e.g. *Cystopteris montana*). For some species the reason for decline is known—most commonly habitat change, for example loss of arable weeds such as *Centaurea cyanus*. Changes in woodland composition/management seem to account for the decline in *Cephalanthera longifolia*, for which western Scotland now seems to be a stronghold. Shading by scrub has led to the loss of *Asplenium septentrionale* from many sites, while drainage of wetlands has led to the decline of species such as *Andromeda polifolia*. The reason for the dramatic decline of *Gnaphalium sylvaticum* is mysterious.

Not all is doom and gloom, however, and some species have genuinely increased, for example *Scrophularia umbrosa*. Whereas *Elatine hydropiper* has decreased in England it has dramatically increased in central Scotland where it was unknown before the 1960s. A few species have been able to increase by colonizing new habitats, for example *Juncus filiformis* on reservoir margins. Some examples of apparent increases due to more thorough searching are *Corallorhiza trifida*, *Alopecurus borealis*, *Carex rupestris* and *Juncus alpinoarticulatus*. Certain species, previously thought to have been declining, are shown to be exploiters of unstable or temporary habitats—coastal (*Mertensia maritima*) or arable (*Papaver argemone*)—and are probably not causes for concern. Other patterns indicate fashions in taxonomy or human foibles, for example the apparent decrease in *Cochlearia scotica* is ascribed to 'botanists' loss of confidence in the existence of the species'!

The work is a model of clarity and the editors are to be congratulated on the formidable task of editing the work of so many different authors and presenting such a large dataset in an accessible form. The book is remarkably good value and is attractively produced with a stunning colour photo of *Mertensia* on the front cover. There is no doubt that it will be of enormous value in monitoring future changes in the distribution of these scarce species and demonstrates the vital need for a completely new *Atlas*.

H. J. Noltie

**Siebold's Florilegium of Japanese Plants.** Edited by Y. Kimura and V. I. Grubov. Tokyo: Maruzen Co. Ltd. 1993. Limited edition of 450 copies. 980,000 yen (c.£7000).

**C. P. Thunberg's Drawings of Japanese Plants.** Edited by Y. Kimura and V. P. Leonov. Tokyo: Maruzen Co. Ltd. 1994. ISBN 4 8395 0118 1. \$333.00.

The Library of the Royal Botanic Garden Edinburgh (RBGE) has recently been honoured to receive, as a gift from the publisher, two extremely valuable and interesting works relating to the history of the Japanese flora. To celebrate their 125th anniversary, the Maruzen Publishing Co. of Tokyo enterprisingly undertook to make available the important collections of unpublished illustrations of Japanese plants commissioned by Thunberg and Siebold. Both

collections were acquired for the Russian Imperial Academy of Sciences around 1870 by C. J. Maximowicz, a great expert on the East Asian flora, and have since lain, largely neglected, in the library of the Komarov Botanical Institute. We are extremely grateful both to Maruzen and to Professor W. T. Stearn who suggested that the RBGE would provide a suitable home for these opulent works. Our collections of Japanese plants in the Garden and Herbarium are strong, and form an integral part of our current research interests in the Asian flora. The Library already has a good collection of Japanese floras (including some fine nineteenth-century wood-block printed herbals), many of which were acquired, with his herbarium, from James Bissett, an important collector who worked in Japan after it had opened to the West in 1853.

### *History*

During the rule of the Tokugawa Shogunate, Western exploration of the Japanese flora was limited to an extent that makes xenophobic attitudes to foreign botanists by certain present-day countries seem positively benign: access to westerners was limited to employees of the Dutch East India Company. Even these were restricted to the 13 hectare artificial island of Deshima, in Nagasaki harbour, with occasional visits to pay homage to the Shogun in Edo (now Tokyo). Nevertheless three physicians working for the Dutch (the Germans Kaempfer and Siebold, and the Swede Thunberg) made the most of the limitations and produced major publications on Japanese botany and natural history.

### *P. F. von Siebold (1796–1866)*

Despite the restrictions, Siebold formed an extensive herbarium during two periods spent in Japan (1823–9 and 1859–61). This was made possible by the high regard in which he was held as a medical teacher, and the help given to him by pupils and fellow academics (which sadly landed some of them in severe trouble). During his first sojourn, Siebold was particularly fortunate to coincide with an outstanding artist of the Nagasaki School, Keiga Kawahara, from whom he commissioned an enormous number of watercolour illustrations. These combine Chinese, Japanese and Western botanical traditions and were used as the basis of composite illustrations by Western artists that were engraved for Siebold and Zuccarini/Miquel's sumptuous *Flora Japonica* (1835–70). Keiga's contribution was not acknowledged in this work and it is good that the best of these magnificent paintings should be reproduced in their full glory at long last. Siebold's botanical importance was not only in furthering the study of the Japanese flora; he also made a lasting contribution to western gardens by the introduction of numerous horticultural plants, including many hostas and lilies.

The present 'Florilegium' consists of three magnificent folio volumes. The first two contain 341 colour plates of watercolours (and a few prints), mainly by Keiga,

with some by other Japanese and Western artists. These are not only highly accurate but also extremely beautiful, and the colour reproduction is of outstanding quality. The fusion of styles is particularly interesting, the Japanese element being manifest in the attractive asymmetric placement on the page and the use of decorative calligraphy, the Western element in the meticulous floral dissections. Some are, in fact, the joint work of Keiga and a Dutch artist of French descent (Villeneuve by name) brought by Siebold to Japan from Java. The third volume contains essays and a full catalogue of all 1040 drawings and prints in the Siebold collection, which are all illustrated in small halftone reproductions. The essays (also published separately in Japanese) are extremely interesting: a characteristic lucid and pithy biography of Siebold by Stearn; a fascinating history of Japanese botany and its Dutch influences by Kimura; a useful account of the Siebold collections, including the location of his various sets of herbarium specimens, by Grubov and Kirpicznikov; a revealing chapter on Siebold's 'diplomatic' activities involving the Russians — he apparently 'attempted to sell information concerning Japan to any potential buyer in his efforts to secure research funds!'; and a painstaking analysis of the drawings, by Tchernaja. The final substantial section consists of an excellent catalogue of the works, by Ohba, giving modern nomenclature and synonyms, details of the media and attributions to artists, and cross-references to the published plates in *Flora Japonica*.

*C. P. Thunberg (1743–1828)*

The second collection of early Japanese plant portraits to be made available by Maruzen are those done for C. P. Thunberg, Linnaeus' pupil, and author of the pioneering *Flora Japonica* (1784). Thunberg spent only a single year (1775–6) in Japan. It is an amazing feat that according to Ohba 20% of the Japanese flora is described in this work — not bad for one year, when most of his material was obtained from rummaging through fodder brought to the animals on Deshima and on a few forays around Nagasaki with a single trip to Edo. Many of the plants included (like those of Siebold) came from gardens and many were not native to Japan, and his work is therefore of relevance to the whole of East Asian botany. The illustrations are monochrome and not in the same league (in terms of accuracy, skill or attractiveness) as those executed for Siebold. They are the work of Thunberg's students, who were not professional artists, and were based entirely on herbarium specimens. Virtually no dissections are included and most of the illustrations could not be identified to specific level without reference to the herbarium specimens, which fortunately survive.

The single volume is a veritable pot-pourri of Thunbergiana, published also to celebrate the 250th anniversary of Thunberg's birth. As well as the 305 previously unpublished monochrome drawings, the 50 published, but rare, *Icones Plantarum Japonicarum* of 1794–1806 (representing something of a nadir of the printer's art) are reproduced. There are also essays by the various Russian, British, Swedish and Japanese authors associated with the Siebold publication. While these contributions

---

are excellent in themselves, they would have benefited from stricter editing or clearer instructions on content in order to avoid unnecessary repetition. The main features are biographies of Thunberg, transcripts of Maximowicz's notes on the drawings relating them to the specimens in Uppsala, and an admirable catalogue of all Thunberg's illustrations (published and unpublished) by Ohba. There is also an analysis (and many photographs) of the herbarium specimens on which the drawings and prints are based, by Nordenstam. This section could usefully have been combined with the catalogue, thereby avoiding the identification of the taxa using Juel's long-outdated (1918) nomenclature.

Despite these minor criticisms Maruzen cannot be praised highly enough for making these important collections of illustrations available in an extremely attractive form, and for the outstanding quality of the reproduction. The Russian editors and their international cast of authors are also to be congratulated for the introductory essays which provide such a useful and fascinating historical context for the works.

H. J. Noltie