REVIEW

The Asiatic species of *Desmodium* and its allied genera (Leguminosae) by Hiroyoshi Ohashi. Published by 'Ginkgoana' (First number of 'Contributions to the Flora of Asia and Pacific region'), Academia Scientific Book Inc., Tokyo, 15th February, 1973 and printed by Gakujutsu Tosho Printing Co. Ltd., Tokyo, Japan. Pages 1-318, plates 1-76.

Ginkgoana has brought out the first number on the series 'Contributions to the Flora of Asia and Pacific region' with a monograph on the Asiatic species of *Desmodium* and its allied genera (Leguminosae) by Hiroyoshi Ohashi, Department of Botany, University of Tokyo, Japan. In this work, the author has dealt the subject under the following heads: Introduction; the concept of the genus *Desmodium* and its historical review; morphological characters; intergeneric and infrageneric relationships—a preliminary consideration and taxonomic treatments. At the end there is a selected bibliography, followed by 76 plates.

A brief review of the generic concept from the time of Linnaeus (1753) upto Hutchinson (1964) is narrated. Prior to the establishment of the genus *Desmodium* by Desvaux (*Journ. de Bot Ser.* 2: 118-125. 1813) many of the present day species were described under Linnaean *Hedysarum*. DeCandolle (*Prodr. Syst. nat.* 2: 93-524. 1825) made a systematic grouping of all such species into 3 genera, *Desmodium, Nicolsonia* and *Dicerma* while Bentham (*Plant. Jungh.* 206-269. 1852) placed them under 5 distinct genera, *Desmodium* sensu Bentham, *Dendrolobium, Phyllodium, Pteroloma* and *Catenaria*. But he reduced at the same time DeCandolle's *Nicolsonia* to a section of *Desmodium*. Bentham subsequently (*Gen. Pl.* 1: 434-600. 1865) changed his earlier concept considerably and recognised only *Desmodium* in the broadest sense thereby reducing all the genera, regarded earlier as distinct, to mere sections. Baker (Hooker's *Fl. Brit. Ind.* 2: 161-175. 1876) followed Bentham with this modification that many of Bentham's sections were raised to subgeneric status. Schindler during the course of his extensive studies on the genus *Desmodium* (*Fedde Rep.* 20-23. 1924-28) restored not only such genera (*Dendrolobium, Dicerma, Pteroloma, Catenaria, Codariocalyx, Nicolsonia*) but also added 3 more new genera (*Hanslia, Hegnera* and *Nephrodesmus*). Hutchinson (*The Families of Flowering Plants* 1, 1964) accepted principally the same limits of these genera as proposed by Schindler.

In the present work Ohashi has retained the genus *Desmodium* Desv. and listed *Codariocalyx* Hassk., *Dendrolobium* Benth., *Dicerma* DC., *Hegnera* Schindl., *Phyllodium* Desv. and *Tadehagi* Ohashi as allied Asiatic genera. He has further reduced the genus *Ougeinia* Benth. to a subgenus under *Desmodium*. *Desmodium* is divided into 7 subgenera of which 4 are further subdivided into 15 sections, 5 subsections and 3 series. *Phyllodium* and *Tadehagi* are divided into 2 and 3 subgenera respectively while the remaining genera are without any taxonomic subdivisions. Thus a total number of 81 species, reported from Asia are assigned to these genera in the following manner: 57 for *Desmodium*, 11 for *Dendrolobium*, 6 for *Phyllodium*, 3 for *Tadehagi*, 2 for *Codariocalyx* and 1 each for *Dicerma* and *Hegnera*.

As per generic analysis *Dendrolobium* is distinguished from the rest by the simple, axillary, racemose inflorescence, solitary flower, and shrubby to arborescent habit. *Phyllodium* is distinct by its foliaceous, triangular bract not found in other genera while *Dicerma* is characteristic of a united stipule. *Tadehagi* is distinguished from the rest by its winged petiole and 1-foliate leaf. *Desmodium* and *Codariocalyx* are differentiated from the rest mainly by their indehiscent, jointed, reticulately veined pod. *Codariocalyx* has a dehiscent pod with arillate seeds. Generic, subgeneric and sectional keys are given.

In an attempt to establish the inter-relationships of the genera, the author considers *Dendrolobium* as the basic stock which has given rise to *Desmodium* complex on the one hand and to *Dicerma* through *Phyllodium* on the other. The former underwent further specialisation in the structure of the bract, stipules and pod to give rise to *Tadehagi, Codariocalyx* and *Desmodium* proper.

New contributions for the genus *Desmodium* include 3 new sections (*Angustistipulosa, Repanda, Reniformia*), 1 new species (*D. williamsii* from Bhutan), 1 new subspecies, 1 new variety besides 1 new name and 10 new combinations. A new subgenus (*Kerria*) is erected under *Tadehagi* where 1 new name and 7 new combinations are proposed. *Phyllodium* has a new subgenus (*Prainia*) and 1 new combination. New taxa include 1 variety and 1 form

in *Dendrolobium* where besides these, 1 new name and 1 new combination are proposed. In *Dicerma* 1 new combination is proposed.

Taxonomic treatment of the species is well executed with reference citation, full synonymy, detailed description, data on distribution, ably supported in tiny maps and representative specimens examined. Pollen characters constitute additional taxonomic data. Dichotomous keys are provided at specific subspecific and varietal levels. The photographs of type and authentic specimens increase the value and usefulness of the monograph.

The general get up and printing are good; but if the outer cover was of sufficient thickness, it could withstand the wear and tear of such a bulky publication. This useful and comprehensive work must have a place in all Botanical Institutions, Herbaria and other similar institutions.

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