

Cambridge University Press

978-1-108-01827-2 - The Different Forms of Flowers on Plants of the Same Species

Charles Darwin

Table of Contents

[More information](#)

CONTENTS.



INTRODUCTION	Page 1-13
----------------------	-----------

CHAPTER I.

HETEROSTYLED DIMORPHIC PLANTS: PRIMULACEÆ.

Primula veris or the Cowslip—Differences in structure between the two forms—Their degrees of fertility when legitimately and illegitimately united— <i>P. elatior</i> , <i>vulgaris</i> , <i>Sinensis</i> , <i>auricula</i> , &c.—Summary on the fertility of the heterostyled species of Primula—Homostyled species of Primula— <i>Hottonia palustris</i> — <i>Androsace Vitalliana</i>	14-54
--	-------

CHAPTER II.

HYBRID PRIMULAS.

The Oxlip a hybrid naturally produced between <i>Primula veris</i> and <i>vulgaris</i> —The differences in structure and function between the two parent-species—Effects of crossing long-styled and short-styled Oxlips with one another and with the two forms of both parent-species—Character of the offspring from Oxlips artificially self-fertilised and cross-fertilised in a state of nature— <i>Primula elatior</i> shown to be a distinct species—Hybrids between other heterostyled species of Primula—Supplementary note on spontaneously produced hybrids in the genus <i>Verbascum</i> ..	55-80
--	-------

Cambridge University Press

978-1-108-01827-2 - The Different Forms of Flowers on Plants of the Same Species

Charles Darwin

Table of Contents

[More information](#)

vi

CONTENTS.

CHAPTER III.

HETEROSTYLED DIMORPHIC PLANTS—*continued.*

Linum grandiflorum, long-styled form utterly sterile with own-form pollen—*Linum perenne*, torsion of the pistils in the long-styled form alone—Homostyled species of *Linum*—*Pulmonaria officinalis*, singular difference in self-fertility between the English and German long-styled plants—*Pulmonaria angustifolia* shown to be a distinct species, long-styled form completely self-sterile—*Polygonum fagopyrum*—Various other heterostyled genera—Rubiaceæ—*Mitchella repens*, fertility of the flowers in pairs—*Houstonia*—*Faramea*, remarkable difference in the pollen-grains of the two forms; torsion of the stamens in the short-styled form alone; development not as yet perfect—The heterostyled structure in the several Rubiaceous genera not due to descent in common Page 81–136

CHAPTER IV.

HETEROSTYLED TRIMORPHIC PLANTS.

Lythrum salicaria—Description of the three forms—Their power and complex manner of fertilising one another—Eighteen different unions possible—Mid-styled form eminently feminine in nature—*Lythrum Græfferi* likewise trimorphic—*L. thymifolia* dimorphic—*L. hyssopifolia* homostyled—*Nesæa verticillata* trimorphic—*Lagerstromia*, nature doubtful—*Oxalis*, trimorphic species of—*O. Valdiviana*—*O. Regnelli*, the illegitimate unions quite barren—*O. speciosa*—*O. sensitiva*—Homostyled species of *Oxalis*—*Pontederia*, the one monocotyledonous genus known to include heterostyled species 137–187

CHAPTER V.

ILLEGITIMATE OFFSPRING OF HETEROSTYLED PLANTS.

Illegitimate offspring from all three forms of *Lythrum salicaria*—Their dwarfed stature and sterility, some utterly barren, some

Cambridge University Press

978-1-108-01827-2 - The Different Forms of Flowers on Plants of the Same Species

Charles Darwin

Table of Contents

[More information](#)

CONTENTS.

vii

fertile—*Oxalis*, transmission of form to the legitimate and illegitimate seedlings—*Primula Sinensis*, illegitimate offspring in some degree dwarfed and infertile—Equal-styled varieties of *P. Sinensis*, *auricula*, *farinosa*, and *elator*—*P. vulgaris*, red-flowered variety, illegitimate seedlings sterile—*P. veris*, illegitimate plants raised during several successive generations, their dwarfed stature and sterility—Equal-styled varieties of *P. veris*—Transmission of form by *Pulmonaria* and *Polygonum*—Concluding remarks—Close parallelism between illegitimate fertilisation and hybridism Page 188-243

CHAPTER VI.

CONCLUDING REMARKS ON HETEROSTYLED PLANTS.

The essential character of heterostyled plants—Summary of the differences in fertility between legitimately and illegitimately fertilised plants—Diameter of the pollen-grains, size of anthers and structure of stigma in the different forms—Affinities of the genera which include heterostyled species—Nature of the advantages derived from heterostylism—The means by which plants became heterostyled—Transmission of form—Equal-styled varieties of heterostyled plants—Final remarks 244-277

CHAPTER VII.

POLYGAMOUS, DICEICIOUS, AND GYNO-DICEICIOUS PLANTS.

The conversion in various ways of hermaphrodite into diceicious plants—Heterostyled plants rendered diceicious—*Rubiaceæ*—*Verbenaceæ*—Polygamous and sub-diceicious plants—*Euonymus*—*Fragaria*—The two sub-forms of both sexes of *Rhamnus* and *Epigæa*—*Ilex*—Gyno-diceicious plants—*Thymus*, difference in fertility of the hermaphrodite and female individuals—*Satureia*—Manner in which the two forms probably originated—*Scabiosa* and other gyno-diceicious plants—Difference in the size of the corolla in the forms of polygamous, diceicious, and gyno-diceicious plants 278-309

Cambridge University Press

978-1-108-01827-2 - The Different Forms of Flowers on Plants of the Same Species

Charles Darwin

Table of Contents

[More information](#)

viii

CONTENTS.

CHAPTER VIII.

CLEISTOGAMIC FLOWERS.

General character of cleistogamic flowers—List of the genera producing such flowers, and their distribution in the vegetable series—*Viola*, description of the cleistogamic flowers in the several species; their fertility compared with that of the perfect flowers—*Oxalis acetosella*—*O. sensitiva*, three forms of cleistogamic flowers—*Vandellia*—*Ononis*—*Impatiens*—*Drosera*—Miscellaneous observations on various other cleistogamic plants—Anemophilous species producing cleistogamic flowers—*Leersia*, perfect flowers rarely developed—Summary and concluding remarks on the origin of cleistogamic flowers—The chief conclusions which may be drawn from the observations in this volume Page 310–345

INDEX 346–352