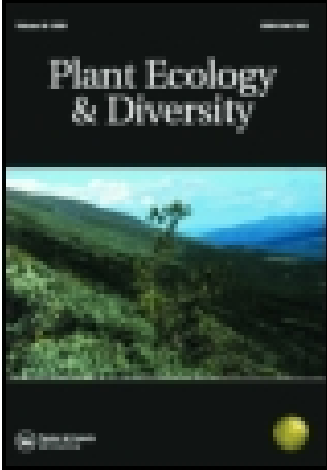


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XIV. Remarks on some of curious Metamorphoses of the Pistil of *Salix caprea*

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XIV. *Remarks on some curious Metamorphoses of the Pistil of Salix caprea.* By the REV. J. E. LEEFE, M.A., *Audley End, Essex.*

READ 13TH MAY 1841.

DR LINDLEY, in his Introduction to Botany, 2d edit., p. 539, when considering the metamorphoses to which the pistil is subject, says, "We seldom, indeed, find it converted *into stamens*, but it often takes upon itself the form of petals, and although *cases are very rare* of pistils bearing *pollen*, yet several instances are known of ovules being born by the stamens." From the rarity of the conversion alluded to by Dr Lindley, in the passage just quoted, I am induced to send to the Society some remarks upon a curious monstrosity which I have met with for two successive seasons, in hopes that, although making no pretensions to scientific accuracy, they may be interesting to the members of the Society.

The plant in question is *Salix caprea*, and I was attracted, in the first instance, two or three weeks ago, by the light green colour and large size of the catkins. The bush grows near Audley End, on the banks of the Cam, overhanging the stream, and appears healthy and vigorous.

The specimens I met with last year (some of which were communicated to the Society,) occurred not far from Audley End, by the side of the road leading to Littleburgh Green. I sent some of them to Professor Henslow, who, I believe, intended to give some account of them, but who has been hitherto prevented from doing so by his numerous engagements.

The catkins were of a light green colour, longer, and tapering to a point, instead of being blunt, as is usual in *S. caprea*. In one case, three apparently proceeded from the same bud. The nectary and scale were very little altered,

and the change is very various in its character, and several intermediate forms occur in addition to those which I am about to mention. Those enumerated are, however, the most remarkable. I may here mention, that I do not mean that all the forms are to be found in the same catkin, and also that the greatest alteration is observable in the flowers at the apex and base of the catkins.

1. Styles two, each bearing at the top two small pale stigmas; in other respects as usual, (Pl. VI. fig. 16.)

2. Scale and nectary as usual. Stalk of the ovarium extremely lengthened, resembling a filament, downy, especially towards the base, terminating in an ovarium. Style cloven, the cleft penetrating the substance of the ovarium; at the base of the cloven style on *one face* only appeared two yellow bodies like the lobes of an anther. This form was observed last year, and was not further examined. (Fig. 17.)

3. Stalk greatly lengthened. Ovarium silky, not much altered at the base; stigmas almost entirely obliterated; instead of them a vertical depression or sinus, on each side of which was a yellow antheriform body, erumpent from the substance of the ovarium. These contained *perfect pollen*, and in the lower ovarium-like portion, I remarked several ovules. (Fig. 18.)

4. Stalk forked or branched near the top, each fork bearing a silky body resembling an ovarium. (Fig. 19.)

5. Stalk forked; one fork filament-like, and tipped with an anther yielding pollen; the other silky, approaching an ovarium in form, and containing ovules. (Fig. 20.)

6. In this form, in which the nearest approach to a stamen was made, each fork bearing an anther containing pollen, and the ovarium being entirely obliterated, traces of the original structure are to be seen in the bifurcated filament analogous to the two stigmas. (Fig. 21.)

All the forms of these pseudo-stamens soon wither, but I do not find any traces of disease.