

A large number of seeds of *Feronia elephantum* Correa was examined but without finding any case of polyembryony. A few tricotyledonous embryos were found, but their development was not studied. A few ovules were serially sectioned and examined but no clear case of nucellar embryogeny was seen.

Thus two more species of the Rutaceæ, including another genus, are found to show this interesting phenomena. Nucellar embryos are very rarely found in *Aegle* and even then they seem to stop development at a very early stage, whereas in *Citrus* and *Murraya* the nucellar embryos compete strongly during development with the normal embryo. It is probable that we see within the Aurantieæ a sort of progression beginning with the origin of nucellar embryogeny in a form like *Aegle*, leading to forms like *Citrus* and *Murraya Kænigi*. Within the genus *Murraya* itself we have a similar progression from *M. exotica* to *M. Kænigi*. A study of further genera of the Aurantieæ may prove to be interesting.

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September 5, 1936.

¹ Schnarf, *Embryologie der Angiospermen*, 1929.

² Chakravarty, R. S., *Curr. Sci.*, 1935, 3, No. 8, 361-362.

Teratological Notes.

ABNORMALITIES have been recorded in the following plants:—

- A. *Solanum Melongena* Linn. (*Solanaceæ*).
- B. *Phlox Drummondii* (*Polemoniaceæ*).
- C. *Jasminum humile* Linn. (*Oleaceæ*).
- D. *Bauhinia variegata* Linn. (*Leguminosæ*).

A. The plant of *Solanum Melongena* (Fig. 1) under consideration is very striking because of the following abnormalities:



Fig. 1.

1. Plant is devoid of prickles. This fact is not strange, as in rich soil prickles often disappear.

2. Lower and upper leaves are quite abnormal, more or less lanceolate. Leaves in the middle region are normal, but devoid of prickles.

3. (a) Flowers are quite abnormal; axillary, green. Sepals very much enlarged, pale-green. In the region of the corolla, there is only one leaf of the same size and shape as the sepals, somewhat like a spathe half-enclosing a small bunch of minute leaves on which still smaller leaves are attached. There is no ovary, only a disc-like structure is present above the pedicel.

(b) Calyx of 5 sepals, 3 small and 2 big, of the same shape as those in (a) but the biggest ones are half the size of those in (a). In the region of the petals are two green leaves, lanceolate in shape. Below the sepals is a cup-shaped 3-lobed structure. Ovary is raised on a stalk, resembling a gynophore or

a developing fruit of *Capsicum*; no style, stigmas 2 (Fig. 2).

4. On examining the cross-section of the ovary (Fig. 3) it is found that there are 2 loculi and the placenta is axile, but there are no

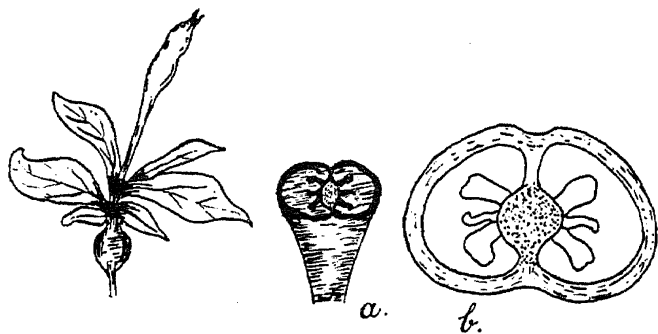


Fig. 2.

Fig. 3.

ovules, they are only represented by tooth-like structures projecting from the placenta. The remaining portion of the ovary is hollow.

DISCUSSION.—This is a fine case of reversion to the primitive type.

The flowers are stalked, hence no degeneration has taken place in this respect. The lowermost or first whorl of leaves in the flower may be taken as sepals, the second whorl of green leaves in the region of the corolla are petals which have reversed to the leafy form. So have the stamens. The absence of style also shows a reversion to the primitive type in which the stigma was without a stalk.

An example of this type is very interesting from the point of view of illustrating the evolutionary progression of the flower, and also serves as a good example of phyllody (Chloranthy).

B. *Phlox Drummondii*.—Four styles were observed in a few flowers of *Phlox Drummondii* growing in the Botanic Garden, Osmania University. As a rule there are only three styles in *Polemoniaceae*.

C. *Jasminum humile* Linn.—Three stamens have been observed in some flowers of *J. humile* growing in the Botanic Garden of the Osmania University. The majority of the *Oleaceae*, as is well known, possess only two stamens of the ancestral tetrandrous flower. The specimens under consideration show a partial reversion to the original type.

D. *Bauhinia variegata* Linn.—Only one fertile stamen is found. As a rule there are three to five fertile stamens. Cooke mentions

that one fertile stamen is found in *Bauhinia monandra* which is mistaken for *Bauhinia variegata*.

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Botany Department,
Osmania University,
Hyderabad (Deccan),
September, 1936.

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A New Species of Myxosporidian from the Heart of a Marine Fish, *Otolithus ruber*.

A HITHERTO unrecorded species of *Henneguya* has been found as a tissue-parasite in the bulbus arteriosus of *Otolithus ruber*. Kudo¹ records 32 species of *Henneguya* of which all except *H. neapolitana*, are from fresh-water fishes. The only previous record of a Myxosporidian infecting the heart was made by Keysselitz² of *Myxobolus cordis*, from the ventricle of *Barbus fluviatilis*.

Of the fish examined in this Laboratory, almost seventy-five per cent. show infection in different degrees. When the infection is fairly heavy, the affected area presents numerous white pustules, which are really the cysts of the parasite containing the spores. Vegetative forms, propagative stages, and spores have been observed. The phenomenon of diffuse infiltration seems to be much pronounced in this parasite, bringing about considerable pathological changes. The development, infection, histopathology, and allied problems connected with this parasite are being studied in detail.

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¹ Kudo, R., *Illinois Biological Monographs*, 1919, 5, 1-265.

² Keysselitz, G., *Verh. Ges. deutsch. Natur. u. Arzte, Vers.*, 1908, 79, 452-453.