# THE AFRICAN DICHAPETALACEAE I

#### F.J. BRETELER

Laboratorium voor Plantensystematiek en -geografie, Wageningen

#### 1. INTRODUCTION

The present paper is the first of a series of publications dealing with African *Dichapetalaceae*, which finally will lead to a complete revision of the family as represented in Africa including Madagascar. For several local or regional floras revisions already have been made, but a critical revision covering the total area has never been undertaken. The Asiatic, Australian, and Melanesian species have been revised by LEENHOUTS (1956) and a revision of the American species is in preparation by G.T. Prance at the New York Botanical Garden.

#### 2. THE TAXONOMIC POSITION OF FALYA DESC.

In 1957 Descoings described the monotypic genus Falya, based on Falya leandriana Desc., and placed it in the Dichapetalaceae. The characters of this genus as described are so aberrant, however, if compared with Dichapetalaceae in general, that its systematic position raised doubt. This doubt was submitted to the Paris Herbarium in a letter (Oct. 7, 1966), and the loan of type material was asked. It is a pleasure to say that our request was immediately met, and it could be shown that doubt regarding the correct classification of Falya was fully justified. Support was also found in a foot-note added to a paper by HALLÉ & HEINE (1967).

As it was necessary do decide whether Falya could be admitted to Dichapeta-laceae the characters of Falya were studied closer and it appeared that they belong in Polygalaceae and particularly in Carpolobia G. Don. A comparison of the main characters of Falya with those of Dichapetalaceae and Carpolobia follows.

	Dichapetalaceae	Falya	Carpolobia
Leaf	glanduliferous	glandless	glandless
Stipules	present, normal	glandlike	glandlike (when present)
Pedicel -	jointed	not jointed	not jointed
Petals	united or not	united, tube split down at one side	united, tube split down at one side
Filaments	free or united with corolla, never forming a sheath	forming a sheath which unites the petals	forming a sheath which unites the petals
Connective	dorsally thickened	not thickened	not thickened
Dehiscence of anthers	splitting lengthwise	by two valves, apically	by two valves, apically

Ovary	2–3-locular 2 pendulous ovules per cel	3-locular 1 pendulous ovule per cel	3-locular 1 pendulous ovule per cel
Seed	glabrous, without endosperm	hairy, with abundant endosperm	hairy (except C. delvauxii Pet.), with abundant endosperm

To judge from this list it is evident that the genus Falya does not belong in Dichapetalaceae but in Polygalaceae and has to be reduced to a synonym of Carpolobia G. Don. Moreover, the pollen of Falya leandriana has been investigated by Punt and he confirms that, without any doubt, Falya belongs in Polygalaceae.

Carpolobia is a tropical African genus of 7 species, all confined to the continent. From Madagascar only Polygala is known to occur (Perrier de La Bathie 1955). The characters of Falya leandriana do not fit any of the presently known species of Carpolobia. The small coriaceous leaves with typical indumentum beneath, the conical, truncate, glanduliferous stipules and the rather equal corolla lobes of Falya leandriana make it possible to distinguish an eighth species of Carpolobia, the first record for the genus in Madagascar.

## Carpolobia leandriana (Desc.) Bret., comb. nov.

Basionym: Falya leandriana Descoings, Nat. Malgache, 9, 2, 1957.

Type: Perrier de la Bâthie 18746 (P, holotype!; TAN, isotype).

Distribution: (only known from type locality) Madagascar, Sambirano, Nosy-Faly.

#### **ACKNOWLEDGEMENTS**

The author expresses his gratitude to Dr. W. Punt from Utrecht State University for his research on the pollen of Falya and to the director of the Muséum National d'Histoire Naturelle (P) for sending the type material on loan.

### REFERENCES

CHODAT, R. (1890): Polygalaceae; in ENGLER & PRANTL, Nat. Pflanzenf. 3, 4: 323.

- (1897): Sur un nouveau Carpolobia. Bull. Herb. Boiss. 5: 117.

Descoings, B. (1957): Note sur un genre nouveau de Dichapetalacées. Le Naturaliste Malgache 9, 2: 171.

— (1961): Dichapetalaceés; in Humbert, Flore de Madagascar, fam. 110: 33.

Exell, A.W. (1960): Polygalaceae, in Flora Zambesiaca 1, 1: 304.

HALLÉ, N. & H. HEINE (1967): Deux nouvelles espèces du genre Tapura Aubl. Adansonia, sér. 2, 7, 1: 43.

KEAY, R.W.J. (1954): Polygalaceae, in F.W.T.A. 2nd ed. 1, 1: 108.

LEENHOUTS, P. W. (1956): Some notes on the genus Dichapetalum in Asia, Australia, and Melanesia. *Reinwardtia* 4, 1: 75.

LESTER GARLAND, L. V. (1921): A revision of the genus Baphia DC. Journ. Linn. Soc. 45: 221. Perrier de la Bathie, H. (1955): Polygalaceés; in Humbert, Flore de Madagascar, fam. 109.

PETIT, E. (1955): Polygalaceae nouvelles du Congo Belge. Bull. Jard. Bot. Brux. 25: 335.

- (1958): Polygalaceae; in Flore du Congo Belge et du Ruanda-Urundi 7: 281.

STAPF, O. (1905): Contributions to the flora of Liberia. Journ. Linn. Soc. 37: 85-86.