

## 9. BERRY, Paul E. & Peter B. PHILLIPSON:

### An earlier name for *Capuronia madagascariensis* Lourteig (Lythraceae)

*Capuronia* Lourteig is a monotypic genus of *Lythraceae* that was described from southwestern Madagascar (LOURTEIG, 1960). Its sole species to date, *C. madagascariensis* Lourteig, is a shrub that is widespread in dry forests across the western half of the island, in Antsiranana, Mahajanga, and Toliara Provinces. While examining material of *Euphorbia* from Madagascar at the National Museum of Natural History in Paris, it was discovered that a species described by LEANDRI (1947) as *E. benoistii* Leandri does not belong to the *Euphorbiaceae* at all. After examining floral material from the type, it proved to have lythraceous flowers, and it was eventually matched to *Capuronia madagascariensis*. Since *Euphorbia benoistii* is the earlier name, the corresponding combination needs to be made under *Capuronia*. An update on its known distribution is also provided.

#### *Capuronia benoistii* (Leandri) P. E. Berry, **comb. nova**

≡ *Euphorbia benoistii* Leandri in Notul. Syst. (Paris) 13: 117, fig. 8-10. 1947.

**Typus:** MADAGASCAR. **Prov. Toliara:** basse vallée du Fiherenana, 50-200 m, XI.1933, *Humbert 11547* (holo-: P [P00077908]!; iso-: P [P00077909, P00077910]!).

≡ *Capuronia madagascariensis* Lourteig in Compt. Rend. Hebd. Séances Acad. Sci. 251: 1033. 1960.

**Typus:** MADAGASCAR. **Prov. Toliara:** bassin moyen du Fiherenana entre Lambomakandro et Sakaraha, 400 m, 10.XII.1946, *Humbert 19695* (holo-: P [P00412924]!; iso-: K [K000310560, K000310561], P [P00412925, P00412926]!, US [US0011 7369]!).

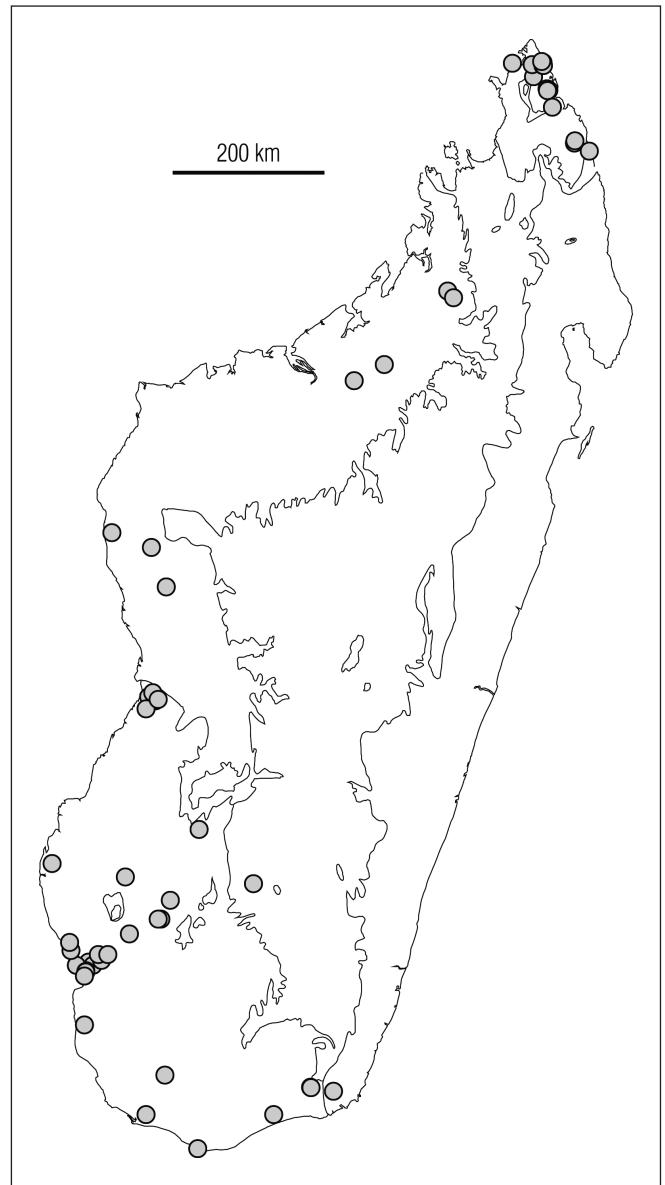
*Additional specimens examined.* – MADAGASCAR. **Prov. Antsiranana:** Orangea, [12°14'00"S 49°22'00"E], 1-100 m, 22.I.1960, *Cours & Humbert 5397* (P) = *Humbert & Cours 32269* (P); Antsiranana II, Sadjoavato, Forêt Anjiamiaovtra (Sahafary), 12°34'58"S 49°27'12"E, 254 m, 23.II.2006, *Guittou & Colin 266* (CNARP, MO, P, TAN); Collines et Plateaux calcaires de l'Analamera, [12°47'24"S 49°30'E], 50-400 m, II.1938, *Humbert 19234* (P); Mangoaka, Ampasindava, Nosy Hara, 12°15'18"S 49°00'26"E, 50 m,

3.X.2007, *Ratovoson & al. 1390* (CNARP, MO, P, TAN); Betroka, Forêt d'Analamiro au Sud Est du village Ambararata, 12°16'40"S 49°23'01"E, 25 m, 9.XII.2004, *Razafitsalama & al. 689* (CNARP, MO, P, TAN); Orangéa, 12°14'39"S 49°22'47"E, [1-100 m], 12.II.2005, *Schatz & al. 4211* (CNARP, MO, P, TAN); Forêt de Sahafary, 12°35'17"S 49°26'05"E, 210 m, 15.II.2005, *Schatz & al. 4305* (CNARP, MO, P, TAN); Forêt d'Analandriana au Nord de Sakaramy, [12°25'S 049°16'E ], 300 m, 14.II.1962, *Service Forestier 20963* (P, TEF); Forêt de Sahafary, Bassin de la Saharaina, [12°34'S 49°26'E], c. 200 m, 20.II.1962, *Service Forestier 20997* (P, TEF); Butte calcaire, près d'Andrakaka, à l'Ouest de Diégo-Suarez, [12°16'S 49° 15'E], 17.V.1905, *Service Forestier 23279* (P, TEF); Orangéa, [12°15'S 49°23'E], [1-100 m], s.d., *Service Forestier s.n.* (TEF); Antsahalalina, part of Bobankora Range, Daraina, 13°14'S 49°46'E, 200-600 m, 11.II.1991, *Meyers & Boltz 264* (MO, P, TAN); Daraina, Forêt de Bobankora, à 3 km au Sud de Madirobe. 13°12'28" S 49°46'23"E, 65 m, 16.XII.2007, *Randrianaivo & al. 1537* (CNARP, MO, P, TAN); Vestige de forêt entre Belinta et Ambatrabe, au N.W. de Vohémar, 13°20'S 49°57'E, 1966, *Service Forestier 27335bis* (P, TEF). **Prov. Fianarantsoa:** Forêts tropophylle entre Ihosy et Sakalalina, [22°20'S 45°50'E], 1000-1100 m, 1961, *Service Forestier 20407* (P, TEF); idem, *Service Forestier 20408* (P, TEF). **Prov. Mahajanga:** Massif de l'Ankarafantsika, [16°09'S 47°04'E], s.d., *Service Forestier 112* (P); Antsingy, vers Ambodiriana (E. d'Antsalova), [18°12'S 44°35'E-19°07'S 44°58'E], 100-150 m, 21.I.1960, *Leandri & Saboureau 2669* (P); Antsalova, [18°41'S 44°46'E], 15.V.1905, *Réserves Naturelles 12482* (P, TEF); Forêt d'Amboloando, District de Maintirano, [18°01'S 44°06'E], 1962, *Service Forestier 16361* (P, TEF); Ampombilava-Befandriana N., 15°03'S 48°13'E, 30.II.1942, *Herbier du Jardin Botanique de Tananarive 5444* (P); Mampikony, Forêt d'Ambalafomby, 15°57'05"S 47°26'09"E, 232 m, 4.XII.2004, *Ramananjahary & al. 201* (MO, P, TEF); Analarezy, Ankobakobaka, Befandriana Nord, [15°08'S 48°17'E] 28.VII.1970, *Service Forestier 30036* (TEF). **Prov. Toliara:** Ambovombe (Sud), [25°10'S 46°05'E], X.1956, *Bosser 10200* (TAN); Cap-Sainte-Marie, [25°35'S 45°09'E], IX.1985, *Rakotozafy 2013* (TAN); Réserve d'Andohahela, Parcelle 2, 24°50'S 46°32'E, 100 m, 7.XII.1988, *Phillipson 2831* (G, GRA, K, MO, P, TAN); idem, *Phillipson 2852* (G, GRA, K, MO, P, TAN); Andohahela (parcel 1), Tsimelahy, 24°50'20"S 46°32'17"E, 6.IV.1996, *Randriamampionona 1305* (MO, P, TAN); entre Ankoba et Mahamavo (haut bassin de la Mananara, affluent du Mandrare), [24°53'S 46°49'E], 21.I.1963, *Service Forestier 22435* (P, TEF); La Table de Toliara, 15 km à l'Est de la ville de Toliara, 23°24'35"S 43°46'53"E, 23.XII.2004, *Andriamihajarivo & Ludovic 532* (MO, TAN); Viam de Tulear ad Ampanihy, praecipue ad km 60, 24°41'S 44°45'E, 13.II.1967, *Bernardi 11425* (P); Environs de Tulear, 23°20'S 043°40'E, 1.II.1956, *Bosser 10504* (P, TAN); Forêt de Zombitsy, 22°46'S 44°42'E, 1.XII.1959, *Bosser 13987* (P, TAN); Bush sur calcaire, vallée du

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PBP: Missouri Botanical Garden, P. O. Box 299, St. Louis, Missouri, 63166-0299, U.S.A. and Muséum national d'Histoire Naturelle, Département Systématique et Evolution, UMR 7205, case postale 39, rue Cuvier 57, 75231 Paris, cedex 05, France.

Fiherenana, 22°57'S 44°19'E, 1960, *Bosser 14425* (P, TAN); Env. de Tuléar, bas de la Table, [23°24'S 43°47'E], 20.II.1961, *Chauvet 40* (P); La Table, [23°24'S 43°47'E], 4.III.1961, *Chauvet 55* (P, TEF); PK 30 route de Tuléar-Tananarive, [23°20'S 43°52'E], 4.II.1962, *Chauvet 261* (P); PK 28 route Tuléar-Tananarive, [23°24'S 43°47'E], 11.II.1962, *Chauvet 355* (P); Gorges du Fiherenana, [22°57'S 44°19'E], 18.II.1962, *Chauvet 368* (P, TEF); 8-16 km E of Tulear on road to Tananarive, [23°25'S 43°47'E], 50 m, 7.II.1975, *Croat 30956* (MO, P, TAN); Road from Tulear to Ankilimalinika 36.6 km N of Tulear, 23°03'S 43°35'E, 0-50 m, 22.III.1985, *Dorr & al. 4118* (MO, P, TAN); Road to Saint Augustin (Anatsogno), 23°33'S 43°46'E, 50 m, 23.III.1985, *Dorr & al. 4136* (G, K, MO, P, TAN); Gorges du Fiherenana, rive gauche entre Beantsy et Anjamala, [23°12'S 43°56'E], 30-300 m, 16.I.1947, *Humbert 19933* (P); Plateau au Sud des gorges du Fiherenana, entre Andranohinaly et Andranovory, [23°12'S 44°03'E], 300-400 m, 3-4.II.1947, *Humbert 20123* (P); Falaise côtière vers l'embouchure de la Menarandra : Bevoalava – Ankazondrato, [25°10'S 44°31'E], 1-150 m, 12.III.1955, *Humbert & Capuron 29362* (P); Env. de Tuléar, Gorges du Fiherenana, à quelques km de Miary, [23°17'34"S 43°48'53"E], III.1960, *Keraudren 680* (P); Réserve de Tsimanampetsotsa, 24°04'S 43°46'E, 50 m, 11.I.1989, *Phillipson & Rabsihanaka 3148* (G, GRA, K, MO, P, TAN); Forêt de Mikea, axe Belo-Ankilimihavotse, 22°05'S 43°22'E, 0-50 m, 30.I.2000, *Ranaivojaona & al. 303* (MO, P, TAN); Vallée de l'Isahaina, au Sud de Beroroha, [21°40'S 45°10'E], [780 m], 24.II.1949, *Service Forestier 531* (P, TEF); Route Tulear-Sakaraha vers les PK 65-55, [23°12'S 44°03'E], [450 m], 1961, *Service Forestier 20724* (P, TEF); idem, *Service Forestier 20728* (P, TEF); idem, *Service Forestier 20733* (TEF); idem, *Service Forestier 20241* (TEF); Forêt d'Herea au N de Mitia dans le haut bassin de l'Iloana, [22°15'S 44°16'E], 600-700 m, 16.XII.1962, *Service Forestier 22215* (P, TEF); Route Tulear-Sakaraha PK 38, piste Analamitsivalana, [23°16'30"S 43°58'30"E], [200 m], 8.I.1962, *Service Forestier 20772* (P, TEF); Forêt de Marosalaza, 50 km N de Morondava, [20°02'S 44°33'E], 0 m, 4.V.1974, *Abraham 53 bis* (P); Morondava; in private reserve of Analabe 1 km S of Beroboka, 19°59'S 44°36'E, 30 m, 15.II.1986, *Nicoll 146* (K, MO, P, TAN); 55 Km NE of Morondava, Kirindy Forest, 20°04'S 44°40'E, 35 m, 14-16.III.1992, *Noyes & al. 1022* (G, K, MO, P, TAN); Morondava, Kirindy, Marofandilia, [20°05'S 44°38'E], [25 m], 26.II.1988, *Service Forestier 31891* (TEF); Morondava, entre Andranomena et Marofandilia, [20°11'S 44°31'E], 50 m, 19.I.1962, *Service Forestier 20898* (P, TEF); Piste d'Ifaty, [23°09'S 43°36'E], 1.II.1975, *Rakotozafy 1595* (TAN).

**Observations.** – LEANDRI (1947) evidently mistook the perigynous hypanthium of the type of *Euphorbia benoistii* for a cyathium. Although he assigned the species to *Euphorbia* sect. *Anisophyllum* Roep. (the former genus *Chamaesyce* Gray), because of its opposite leaves, Leandri did note that it was anomalous there by virtue of its symmetrical leaves and lack of cyathial glands. *Capuronia* is the only genus of *Lythraceae* that is morphologically dioecious (LOURTEIG, 1960; GRAHAM, 2007). Although most plants of *C. benoistii* are 6-merous, as in the type of *C. madagascariensis* (LOURTEIG, 1960), the type of *C. benoistii* is 5-merous (LEANDRI, 1947). However, genera of *Lythraceae* are well known to be variable in floral merosity (GRAHAM, 2007), and therefore this is not deemed to be of any taxonomic significance. There are six mounted duplicates at P of the type of *Euphorbia benoistii*, *Humbert 11547*, five of these have been filed under *E. benoistii* and were annotated by Leandri, but the sixth was presumably separated from the others before this since it was not annotated by him. This specimen was eventually examined by



**Fig. 1.** – Distribution of *Capuronia benoistii* (Leandri) P. E. Berry in Madagascar mapped on the bioclimatic zones of Madagascar (after CORNET, 1974; see SCHATZ, 2000).

Lourteig (1960), and was cited by as a paratype of *Croton madagascariensis*, but it bears no other determination or any indication that it is a duplicate of the type collection of *Euphorbia benoistii*. If there was any evidence that Lourteig was aware that the collection was the type of another species, then following Art 52 of the ICBN, *Capuronia madagascariensis* would be regarded as an illegitimate name, but this is not the case. Nuclear and chloroplast phylogenies of *Lythraceae* (GRAHAM, 2007), as well as studies of wood anatomy (BAAS, 1986), show *Capuronia* to be most closely related to *Galpinia* N. E. Br., a monotypic genus from South Africa.

Since the publication of *Capuronia* by LOURTEIG (1960), many additional specimens have been collected that broaden the known range and habitat of *C. benoistii*. An updated map of the species' distribution is provided in Fig. 1.

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