

MORACEAE

NEW RECORDS OF *FICUS* SPECIES AND THEIR POLLINATORS ON GRAND COMORE

The Comoros consist of four major islands of volcanic origin, the largest and geologically youngest of which is Grand Comore (Ngazidja). The fig trees (*Ficus* spp., Moraceae) of the Islands were revised by Berg (1986), who recognised nine *Ficus* species, five of which were recorded from Grand Comore. The nine Comoran *Ficus* species include two species that are also present on the African mainland and six species shared with Madagascar. There is also one endemic species, and one of the species shared with Madagascar is represented by an endemic subspecies.

Fig trees are pollinated exclusively by fig wasps (Hymenoptera: Agaonidae). Knowledge of the fig wasps of the Comoro Islands is minimal, with just a single record from Mayotte of *Allotriozoon heterandromorphum*, the pollinator of *F. lutea* (Wiebes 1974). This report describes the results of a survey of *Ficus* species and their pollinators carried out on Grand Comore in July 1990. Specimens of eight *Ficus* spp. were collected, of which four were new to the island. The pollinators of four of these *Ficus* species were also collected. These included the pollinator of one of the taxa endemic to the islands, which had not been recorded previously. Plant collection codes (CH) and the herbarium where the material is deposited are indicated. The wasps are retained by the author.

F. pachyclada Bak. subsp. *pachyclada*

North of Magoudjou, near South African Research Farm, *CH1* (RUH), 10 m, free-standing among rocks in remnant woodland, 25-vii-90. Previously recorded from Madagascar. Additional uncertain records, based on juvenile specimens, from Grand Comore. Previous records cited in Berg (1986).

F. bojeri Bak.

Near Dzamadjou, 6 km north of Moroni, *CH2* (RUH), 4 m, free-standing tree along roadside, 22-vii-90; near Maoueni, *CH3* (RUH), 9 m, strangler along roadside, figs in leaf axils and projecting from the main trunk, 24-vii-90; near Maoueni, *CH4* (RUH), 13 m, large buttressed tree along roadside, 24-vii-90. Previously recorded from Madagascar, Seychelles and other islands in the Comoros. Previous records cited by Berg (1986). New records for Grand Comore.

F. sycomorus L.

Hadjambou, in the northeast of the island, *CH5* (RUH), 6 m buttressed tree in pasture, 23-vii-90. Pollinating wasp *Ceratosolen arabicus* Mayr,

as in mainland Africa. The non-pollinating agaonid *Ceratosolen galili* also present. Widespread in Africa, Madagascar and other islands in the Comoros. Previous records cited in Berg (1986). New record for Grand Comore.

F. tiliifolia Bak.

Mount Karthala, above Moroni, *CH6* (RUH), at side of contour path in disturbed forest, one of a group of six 3–4 m saplings, 26-vii-90. Previously recorded from Madagascar and other islands in the Comoros. Previous records cited by Berg (1986). New record for Grand Comore.

F. lutea Vahl

Maoueni, 5 km north of Moroni, *CH7* (RUH), small strangler in remnant woodland, 22-vii-90; Maoneni-Grill forest, *CH8* (RUH), large free-standing tree in cleared pasture near forest, 24-vii-90. Pollinating wasp *Allotriozoon heterandromorphum* Grandi, as in mainland Africa. Widespread in Africa, Madagascar and other Indian Ocean islands. Previous records cited by Berg (1986).

F. rubra Vahl

Maoueni, 5 km north of Moroni, *CH9* (RUH), small strangler, 22-vii-90; Maoneni-Grill forest, *CH10* (RUH), small strangler, figs on pedicels in leaf axils and more or less sessile from major branches, 24-vii-90. Pollinating wasp *Nigeriella avicola* Wiebes, as on Aldabra (Wiebes 1975); southeast coast near Chamou Beach, *CH11* (RUH), large strangler on baobab, 27-vii-90. Recorded from Madagascar, the Comoros and other Indian Ocean Islands. Previous records cited by Berg (1986).

F. antandronarum (H. Perrier) C.C. Berg subsp. *bernardii* C.C. Berg

Maoneni-Grill forest, *CH12* (RUH), small strangler, mature figs yellow. Pollinating wasp *Elisabethiella* sp. indesc., 24-vii-90; Maoneni-Grill forest, *CH13* (RUH), small strangler, 24-vii-90. This subspecies is restricted to the Comoro Islands. Previous records cited by Berg (1986). New pollinator record for the subspecies and species (Wiebes & Compton 1990).

F. reflexa Thunb. subsp. *aldabrensis* (Bak.) C.C. Berg

Road between Moroni and Mt Karthala, *CH14* (RUH), scrub/plantation, at roadside, small strangler of Jack fruit, 26-vii-90; South Coast road, near Sima Ambonii, *CH15* (RUH), roadside, small strangler on baobab, 25-vii-90. This subspecies previously recorded from Aldabra and other islands in the Comoros. Previous records cited by Berg (1986). New record for Grand Comore.

Eight of the nine *Ficus* species known from the Comoro Islands were collected. The remaining species, *F. kartha-*

lensis C.C. Berg, was originally described from Grand Comore. Consequently, all the fig species known from the Comoros have now been recorded from Grand Comore.

The natural vegetation of Grand Comore consists of coastal and upland forest zones and a small area of heathland at the summit of Mt Karthala (Bijmens *et al.* 1987). In the lowlands, most of the original forest cover on the island has been converted to agriculture. The extent of native tree removal at lower altitudes is nonetheless variable, and *F. sycomorus* is not uncommon, either in remnant patches of disturbed forest or growing in pastures. The smaller strangler figs also persist at lower altitudes, if suitable host trees remain. At higher altitudes, forest cover is extensive on the active volcano Mt Karthala and there is a remnant Maoeni-Grill forest. *F. tiliifolia* and *F. antandronarum* subsp. *bernardii* were detected only in these areas.

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