

Short communication

NEW PLANT RECORDS FOR ETHIOPIA

Tesfaye Awas, Sebsebe Demissew* and Tamrat Bekele

The National Herbarium, Faculty of Science, Addis Ababa University
PO Box 3434, Addis Ababa, Ethiopia

ABSTRACT: Three plant species, *Chazaliella abrupta* (Hiern) Petit & Verdc. (Rubiaceae), *Corchorus capsularies* L. (Tiliaceae) and *Ipomoea shupangensis* Bak. (Convolvulaceae) were recorded from Gambella as new additions to the Ethiopian Flora.

Key words/phrases: Gambella, *Chazaliella abrupta*, *Corchorus capsularies*, *Ipomoea shupangensis*

INTRODUCTION

In the course of a study to document non-cultivated food plants and wild relatives of cultivated crops from Gambella, southwestern Ethiopia (October 14, 1995 - October 10, 1996), it was noted that among the plants collected three species *Chazaliella abrupta* (Hiern) Petit & Verdc. (Rubiaceae), *Corchorus capsularies* L. (Tiliaceae) and *Ipomoea shupangensis* Bak. (Convolvulaceae) did not match with any specimens collected from Ethiopia and deposited at the National Herbarium. It was also not possible to key out using preliminary accounts of the family Rubiaceae by Puff (in preparation), family Tiliaceae by Vollesen and Sebsebe Demissew (1995), and family Convolvulaceae by Sebsebe Demissew (in preparation). In this report we present results of a detailed study on these species which are now recognized as new additions to the Ethiopian Flora.

MATERIALS AND METHODS

The study was carried out in Gambella People's National Regional State, in southwestern Ethiopia, between latitudes 6°30' and 8°30' N and longitudes 33°00' and 35°45' E, with an area of 26,000 km². The region is bordered by Oromia Regional State to the north, Southern People's Nations and Nationalities Regional State to the east and Republic of the Sudan to the south and west. The northern and the eastern parts of the region have an elevation about 2,000 meters above sea level. The central part is between 500 and 600 m. Toward the western part elevation decreases gradually to an altitude of 300 m.

A reconnaissance survey of the study region was made in October, 1995 to identify vegetation types in undisturbed areas. Everest altimeter was used to measure altitude and 1:50,000 map was used to decide areas for detailed study.

Through five study trips 469 plant specimens were collected, pressed, dried for identification and mounting. Most of the specimens were identified by comparing them with already identified herbarium specimens at National Herbarium (ETH), Ethiopia and few at Royal Botanic Gardens (K), England (abbreviations according to Holmgren *et al.*, 1981), and with the help of written descriptions in the ETH. All specimens were deposited at the ETH and Institute of Biodiversity/Ethiopia.

RESULTS AND DISCUSSION

The detailed botanical descriptions of the three species including information on collectors, localities and habitats are given below.

I. Chazaliella abrupta (Hiern) Petit & Verdc. (Rubiaceae)

The plant species, *C. abrupta* was recorded previously from Kenya, Tanzania, Mozambique, Malawi and Zimbabwe (Verdcourt, 1976). We report here that it also occurs in Gambella, southwestern Ethiopia as well. The taxonomic character states of the specimen also fit into the description given in Verdcourt (1976).

C. abrupta is an understory shrub up to 3 m high. *Stem* green when young and grey and cork covered when matured. *Leaves* petiolate; petiole up to 3 mm; leaf-blade ovate, 1-2.2 x 2.5-4.5 cm, with characteristic cottony mass in the angle formed by the veins arising from the main vein (mid-rib) on the first half of the lower surface, apex acuminate, base cuneate, margins entire. *Inflor-escence* many flowered. *Flowers* tubular, bright yellow, stamens attached to corolla, nectar with pleasant smell (like honey). *Fruits* drupes, dark blue. *Seeds* brown.

Specimens examined: Ethiopia. Gambella Region: 18 km on Phugnudo-Gog road (Gog forest), 10-04-1996, Tesfaye Awas and Okeach Odol 305 (ETH). **Kenya.** Kilifi District: Manyani, just S of Malindi Point, 3°36' N 40°15' E, 02-04-1981, M.G. Gilbert 6041 (ETH); Kilifi District: 33-36 km. N. of Mombasa, Gongoni Forest, 05-04-1953, Bally 8850 (κ). **Tanzania.** Lushoto District: Amani, Mt. Bomole, 21-02-1950, Verdcourt 84 (κ); Linidi District: Lake Lutamba, 10-12-1934, Schieben 5717 (κ).

Habitat: Semi-deciduous forest dominated by *Baphia abyssinica* Brummitt., *Tapura fischeri* Engl., *Diospyros abyssinica* (Hiern.) F.White., *Milicia excelsa* (Welw.) C.C.Berg, *Malacantha alnifolia* (Bak.) Pierre., *Zanthoxylum lepreurii* Guill. & Perr., *Celtis zenkeri* Engl. and *Trichilia prieuriana* A. Juss. Friis (1992), described this forest as Dry Peripheral Semi-deciduous Guineo-Congolian Forest. The top soil is grey. Sub soil is sandy and with reddish granules. Altitude ca. 700 m.

2. *Corchorus capsularies* L. (*Tiliaceae*)

Vernacular Name: Awachuwaey (Anywaa)

Workers such as Purseglove (1968), Copley and Steele (1976) had reported that *C. capsularies* occurs wild only in China. It was recorded as a cultivated plant in the Republic of South Africa and Tanzania (Edmonds, 1990). However, it was found to occur wild in Gambella. The taxonomic character states of the specimen fit into the description given by Edmonds (1990).

C. capsularies is an annual herb up to 1 m high. *Leaves* glabrous; petiole 4-14 mm; leaf-blade lanceolate, 0.8-3 x 2.5-12 cm; apex acuminate, margins serrate, with the lower 2-teeth elongate into auricles, 3-8 mm. *Flowers* yellow, leaf

opposed, (1-3) at a point. *Capsules* globose, flattened at the top, surrounded by longitudinal ridges. *Seeds* brown to black.

Specimens examined: **Ethiopia.** Gambella Region: 12 km on Abobo-Uballa road, 24-11-1987, Mesfin Tadesse 6729 (ETH); 10 km along the road from Gambella to Bure (Karmi area), 30-11-1995, Tesfaye Awas and Okeach Odol 163 (ETH). **South Africa.** Natal: 30 to 60 miles from the sea, 2000-3000', 1856, Sutherland, s.n. (K). **Tanzania.** 6 km W of Kingupira water hole, 8°30' E, 09-05-1976, K. Vollesen 3609 (K).

Habitat: Riverine vegetation dominated by trees such as *Anogeissus leiocarpa* (A.DC.) Guill. & Perr., *Ficus sycomorus* L., *Celtis toka* (Forssk.) Hepper & Wood and *Tamarindus indica* L.; lianas such as *Combretum capituliflorum* Fenzl ex Schweinf., *Saba florida* (Benth.) Bullock and *Capparis erythrocarpus* Isert. The specimen was collected from dry river-bed growing on sand with *Corchorus aestuans* L., *Senna obtusifolia* (L.) Irwin & Barneby and *Triumfetta rhomboidea* Jacq. Altitude ca. 570 m.

3. *Ipomoea shupangensis* Bak. (*Convolvulaceae*)

Vernacular Name: Ajuwaella (Anywaa)

This species was previously recorded from Kenya, Uganda, Tanzania, Mozambique, Congo Republic, Zimbabwe and Angola (Verdcourt, 1963). The species also occurs in Gambella. The specimen was identified using the key of family Convolvulaceae given by Verdcourt (1963).

I. shupangensis is a prostrate to a twining perennial herb 4-6 m long. *Stem* and *leaves* with milky latex upon cutting. *Leaves* glabrous; petiole 1.5-4.5 cm; leaf-blade ovate, 2-6.4 cm x 2.5-9 cm, apex acute, base cordate, margins entire. *Inflorescence* 3-14 flowered. Corolla campanulate, 6-7 cm, 10-lobed with 5 interpetaline glabrous areas, pale purple with purplish centre, margin more whitish. Stamens 5, hairy at the base, 1 long, 3 short and 1 intermediate and as long as the pistil. Stigma bi-globose. *Fruits* ellipsoid, 3-locular. Milky latex seen upon dissecting young fruits. *Seeds* covered with grey hairs up to 12 mm.

Specimens examined: **Ethiopia,** Gambella Region: 24 km along the road from Gambella to Dembidollo (Solen area), 07-12-1995, Tesfaye Awas, Sebsebe

Demissew and Okeach Odol 240 (ETH); 51 km along the road from Gambella to Bure (Barokela Area), 28-09-1996, Tesfaye Awas 420 (ETH). **Kenya.** Kwale District: 32 km S. of Mombasa, 10-06-1956, Irwin 249 (κ). **Mozambique.** N: Erati, Namapa, nr. Exp. Stat. CICA, fl. & fr. 23-03-1960, Lemos Muacua 51 (κ). **Uganda.** Toro District: Semliki, Nyambirizi valley, 24-11-1935, A. S. Thomas 1549A (κ). **Zimbabwe.** N: Gokwe, Malviriviri R., Gokwe-Copper Queen Rd., fl. 05-01-1964, Bingham 1050 (κ); W: Huwange, EU mine, nr. Gwaai R., fl. 27-01-1967, Wild 7601 (κ).

Habitat: Open woodland dominated by *Terminalia laxiflora* Engl. & Diels, *Combretum collinum* Fresen., *Pterocarpus lucens* Guill. & Perr., *Grewia mollis* A.Juss., *Bridelia scleroneura* Muell. Arg., *Lannea fruticosa* (Hochst. ex A. Rich.) Engl., *Lonchocarpus laxiflorus* Guill. & Perr., *Crossopteryx febrifuga* (G. Don) Benth. and *Pseudocedrela kotschyi* (Schweinf.) Harms with tall grasses on sandy soil. Altitude ca. 750 m.

ACKNOWLEDGMENTS

We would like to thank Dr D. Bridson who confirmed the identification of the specimen of *Chazaliella abrupta*. The project has been supported financially by Institute of Biodiversity/Ethiopia.

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