



Aerva lanata (L.) Juss. ex Schult.

AMARANTHACEAE

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Synonyms

Aerva lanata (L.) Juss. ex Schult.: *Achyranthes lanata* L.; *Achyranthes villosa* Forssk.; *Aerva arachnoidea* Gand.; *Aerva elegans* Moq.; *Aerva floribunda* Wight; *Aerva mozambicensis* Gand.; *Aerva pubescens* Mart.; *Aerva sansibarica* Suess.; *Aerva tandalo* Buch.-Ham. ex Dill.; *Alternanthera pubescens* Moq.; *Amaranthus aeruoides* Hochst. & Steud. ex A. Rich.; *Amaranthus lanatus* Dum. Cours.; *Celosia lanata* L.; *Illecebrum lanatum* (L.) L.; *Illecebrum pubescens* Willd.; *Ouret lanata* Hiern; *Uretia lanata* Kuntze.

Local Names

Aerva lanata: **Kipsigis**: Baiy, **Digo**: Chivwa Kuku, **Sukuma**: Luwecha, **Nyanja**: Mlomo wa Mbuya, **Shambaa**: Paramoyo

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Botany and Ecology

Aerva lanata (L.) Juss. ex Schult.: Perennial herb, sometimes flowering in the first year, frequently woody and suffrutescent below, prostrate to decumbent or erect (occasionally scandent), stiff or weak and straggling, (0.1–)0.3–2 m, branched from the base and often also above (upper branches short to long and slender even on the same plant), but stem and main basal branches often not further branched. Stem and branches terete, striate, densely lanate with whitish shaggy hairs, more rarely tomentose or canescent. Leaves alternate, round to lanceolate- or ovate-elliptic, shortly or more longly cuneate at the base, rounded and apiculate to acute at the apex, commonly densely lanate or canescent on the lower surface and more thinly so above, sometimes subglabrous on the upper surface, rarely glabrous throughout or thickly lanuginose, those of the main stem 10–50 × 5–35 mm, those of the branches and upper part of the stem reducing and often becoming very small, petioles from 2 cm down to almost none. Spikes sessile, solitary or usually in axillary clusters on the main stems or long to very short axillary branches, 0.4–1.5(–2) × 0.3–0.4 cm, divergent, cylindrical, silky, white to creamy, forming a long inflorescence which is leafy to the ultimate spikes, bracts deltoid-ovate to oblong-ovate, 0.75–1 mm, membranous with a short arista formed by the excurrent midrib, pilose, persistent, bracteoles similar or slightly smaller, also persistent. Tepals densely lanate dorsally. Flowers ♀ or hermaphrodite (probably also sometimes functionally ♂). Hermaphrodite flowers: outer 2 tepals hyaline, oval-oblong, abruptly contracted at the tip to a distinct mucro formed by the excurrent nerve, 0.75–1.75 mm without the mucro, inner 3 slightly shorter and narrower, acute with a broad central green vitta along the midrib, which extends for about three-quarters of the length of each tepal and is often furnished with a thickened border, style short, stigmas very short and patent or divergent, anthers perfect, probable male flowers similar but stigmas reduced, subcapitate or very short, scarcely papillose. Female flowers: tepals sometimes similar to those of the hermaphrodite flowers but commonly longer and narrower, tapering above, the outer up to 2.25 mm, style slightly longer, stigmas distinctly longer and often equaling the style, linear, divergent, or suberect, anthers absent, filaments reduced. Capsule rotund, compressed 1 mm. Seed reniform, 0.6–0.8 mm, black, shining, the testa almost smooth in the center, faintly reticulate around the margin. Grows from cultivated and disturbed ground to woodland, bushland and grassland, at swamp and forest edges, open lava screes and lava boulder-strewn hillsides, coastal sands, 0–2030 m. Widespread in the drier parts of the tropics and subtropics of the Old World – in Africa from Sierra Leone across to Egypt, S. to South Africa (rare) and Madagascar, also in Seychelles, Chagos Archipelago, Asia from Arabia to Malaysia, Malayan Islands, Philippines, and New Guinea (Townsend 1985).

Local Medicinal Uses

Aerva lanata: Leaf infusion used to treat sore eyes, also for washing babies with malaria. The smoke is used as inhalant. The whole plant is used to prevent lactation. Roots are used to treat snakebites (Bekalo et al. 2009; Kokwaro 2009). In the Caucasus used for kidney problems (Bussmann et al. 2017). As some in social settings (Mohagheghzadeh and Faridi 2006). In India, used to treat cough, sore throat and wounds (Muthu et al. 2006), also as anthelmintic, to treat boils and cuts, burns, cholera, diarrhea, dropsy, ear problems, fever, headache, malaria, skin problems, snakebites, swellings, and white discharge in the urine (Verma et al. 2007). *Aerva sanguinolenta* is used in India as diuretic (Kumar et al. 2011). *Aerva javanica* serves in Ethiopia to treat cancer (Teklehaymanot 2009), bloody diarrhea, as anthelmintic, and for chest pain (Teklehaymanot and Giday 2010).

References

- Bekalo TH, Demissew Woodmata S, Asfaw Woldemariam Z. An ethnobotanical study of medicinal plants used by local people in the lowlands of Kanta Special Woreda, southern nations, nationalities and peoples regional state, Ethiopia. *J Ethnobiol Ethnomed.* 2009;5:26. <https://doi.org/10.1186/1746-4269-5-26>.
- Bussmann RW, Paniagua Zambrana NY, Sikharulidze S, Kikvidze Z, Kikodze D, Tchelidze D, Batsatsashvili K, Hart RE. Plants in the spa – the medicinal plant market of Borjomi, Sakartvelo Republic of Georgia, Caucasus. *Indian J Tradit Knowl.* 2017;161:25–34.
- Kokwaro JO. Medicinal plants of East Africa. Nairobi: University of Nairobi Press; 2009.
- Kumar M, Bussmann RW, Mukesh J, Kumar P. Ethnomedicinal uses of plants close to rural habitation in Garhwal Himalayan, India. *J Med Plant Res.* 2011;511:2252–60.
- Mohagheghzadeh A, Faridi P. Medicinal smokes. *J Ethnopharmacol.* 2006;108:161–84.
- Muthu C, Ayyanar M, Raja N, Ignacimuthu S. Medicinal plants used by traditional healers in Kancheepuram District of Tamil Nadu, India. *J Ethnobiol Ethnomed.* 2006;2:43.
- Teklehaymanot T. Ethnobotanical study of knowledge and medicinal plants use by the people in Dek Island in Ethiopia. *J Ethnopharmacol.* 2009;124:69–78.
- Teklehaymanot T, Giday MM. Quantitative ethnobotany of medicinal plants used by Kara and Kwegu semi-pastoralist people in lower Omo River Valley, Debub Omo Zone, Southern Nations, Nationalities and Peoples Regional State, Ethiopia. *J Ethnopharmacol.* 2010;130:76–84.
- Townsend CC. *Amaranthaceae*. In: Polhill RM, editor. *Flora of tropical East Africa*. Rotterdam/Boston: A.A.B.alkema; 1985.
- Verma A, Kumar M, Bussmann RW. Medicinal plants in an urban environment: the medicinal flora of Banares Hindu University, Varanasi, Uttar Pradesh. *J Ethnobiol Ethnomed.* 2007;3:35.