

NERVILIA CRISPATA (BL.) SCHLTR. AN INTERESTING GROUND ORCHID

A. SATHYANARAYANA RAO

Systematic Botanist, Botanical Survey of India, Western Circle, Poona

- A B S T R A C T

Nervilia crispata (Bl.) Schltr. an interesting ground orchid, is described from material collected at Mercara. It is also recorded from Tirthahalli, and its occurrence at Biligiri Rangan Hills is confirmed. *Pogonia prainiana* King & Pantl., and *Nervilia monantha* Blatt. & McC. are considered to be later names to identical plants and are both put in synonymy with *Nervilia crispata*. Since the plant is a small herb either in flower or in leaf at one time, and its duration is brief while in flower, it is suggested that it has escaped the attention of plant collectors, remaining unknown from many areas. A detailed description of the orchid, with a photograph and a plate with analytical drawings, is provided to facilitate its discovery in additional localities.

In September 1961, during a general botanical collection in Coorg District (Mysore State), at Mercara, a patch of what appeared to be freshly fallen leaves, was noticed on humus, amidst bracken and lantana bush. On closer observation the leaves were found to be from globose tubers of the size of marbles. An herbarium specimen was made of a leaf, and several tubers were gathered for planting and further study at the experimental garden of the Botanical Survey at Poona. In May 1962, these leafless tubers put forth individually, short, slender, greenish scapes, each terminating in a faintly fragrant orchid flower.

In identifying the orchid, it was found that while it agreed with *Nervilia monantha* Blatt. & McC. according to the *Flora of the Presidency of Madras* (1957), it also agreed with *Pogonia prainiana* King & Pantl. according to the *Orchids of Sikkim-Himalaya* (1898). To settle the question of identification, the situation required examination of the two type specimens. A request to Prof. Bole, of the Blatter Herbarium of St. Xavier's College, Bombay, brought forth the reply that the type specimen of *Nervilia monantha* was not available. But, he kindly sent on loan, for study, a suite of specimens named *Nervilia monantha*, and gathered from Yellapur (North Kanara dist.) the type locality. A study of these and comparison with the Mercara plants clearly showed their similarity. Further the Mercara specimen (Rao 74436) was sent to Dr. S. K. Mukerjee, Keeper of the Central National Herbarium, Calcutta, for favour of comparison with the type specimen of *Pogonia prainiana*. After comparison, he gave it as his opinion that the specimen sent was nothing but *Pogonia prainiana* K. & P. A critical study of the Mercara plants and other herbarium specimens together with the original description and drawing of *Nervilia monantha* Blatt. & McC., and the description and plate of *Pogonia prainiana* King & Pantl., with the further studied opinion of Dr. S. K. Mukerjee, leads to the conclusion that the two names refer to identical plants. But, Schlechter has already cited *Pogonia prainiana* King & Pantl. in

the synonymy of *Nervilia crispata* (Bl.) Schltr., indicating a distribution from India to New Guinea. Accordingly both *Pogonia prainiana* and *Nervilia monantha* have to be placed in synonymy of *N. crispata* (Bl.) Schltr. It is evident that Blatter and McCann (1935) had their own reservation on their new species, for they observe in their prefatory remarks to their account of *Nervilia*:

"We feel confident, though we are not absolutely sure, that the new species are all good ones. Hooker's descriptions are rather meagre and Wight's illustrations are not always perfect. But taking it for granted that the details given by Hooker are correct, we are allowed to say that the species described below are good. If however, one or the other is not and if other botanists should think that they should be combined with one of the older ones, our descriptions will at least serve the purpose of furnishing many details which were not known before".

In the recent revision of the Orchidaceae of Bombay State, Santapau and Kapadia (1961), have maintained *Nervilia monantha*, while, of two other names of Blatter and McCann, they put *N. hallbergii* under synonymy of *N. infundibulifolia*.

Plants of *Nervilia* are at any one time either in flower or in leaf. In leaf, as mentioned earlier, these do not look like distinct plants, but appear as if a clump of leaves from other plants, has freshly fallen down on the ground. In flower, the dull green colour of the scape, and the flower, is easily masked in the variegated background of the humus laden soil, where they grow. The only point of attraction is the pink labellum standing out in contrast with the rest of the dull green perianth. Even this is not usually noticeable, for the flower, unlike other orchid flowers, is open for a very short duration, and soon begins to fold, bend down, and the entire scape droops (Photo 1, also Plate 1, figs. a-d). This could be observed in the course of an afternoon, in flowering plants at the experimental garden of the Botanical Survey, Poona. Such features make them very difficult to spot out in their natural habitat. Consequently they have escaped attention

of plant collectors, remaining unknown from many localities, and hence deceptively appearing to be endemic. At present the known distribution in India is discontinuous, from the Sikkim-Himalaya, and from the midwestern parts of the Deccan peninsula. An ample description with a photograph, and a plate with analytical drawings based on living plants and herbarium material, is now provided with the hope that this will aid in locating this interesting orchid in other areas.



PHOTO 1: *Nervilia crispata* (Bl.) Schltr. showing the plants in flower in their natural habitat. Note the position of the scape.

Nervilia crispata (Bl.) Schltr. in Bot. Jahrb. 45:402, 1911. *Pogonia crispata* Blume, Mus. Bot. Lugd.-Bat. 1:32, 1849. *P. prainiana* King & Pantl. in Jour. As. Soc. Bengal 62²:129, 1898. *Nervilia monantha* Blatt. & McC. in Jour. Bombay nat. Hist. Soc. 35:724, 1932.

Monanthous, hysteroanthous, monophyllous, tuberous herbs. *Tubers* brown, warty, subglobose, 10-20 mm. in diam. with two lateral, slender stolons, often ending in subsidiary tubers. *Leaves* appearing after flowering, from sheath enclosed leaf-buds, at first ovoid or ellipsoid, then spreading from plicate folds into infundibuliform, then to flabellate, and at maturity to flat orbicular-cordate laminae 0.5-8.0 cm. broad. *Lamina* subcoriaceous when fresh, becoming membranous on drying, dark green, densely velvety pubescent at first, the pubescence later becoming less

dense and scattered at maturity, on the upper surface; pale green, glabrous on the lower surface; 5-12-ribbed, the ribs radiating from the base, distinct on the upper surface, but obscure on the lower surface. *Petiole* slender, 1-5 cm. long, sheathed in a loose, membranous, ovate, acuminate scale, 10-20 mm. long, 8-12 mm. broad. *Scape* one-flowered, greenish, slender, erect at first, later becoming decumbent, 3.5-9.0 cm. long, with 2 to 3 nodes, each with a loose, membranous, acute to subacuminate sheath-scale. *Flower* faintly fragrant, terminal, with an erect labellum, and spreading sepals and petals on blossoming, becoming folded and nodding later. *Bract* conical, about 2 mm. long. *Sepals* and *Petals* membranous, similar, subequal, pale green to pinkish tinged, linear oblanceolate, entire, acute, 13-20 mm. long, 2-3 mm. broad; sepals 5-nerved; petals 3-nerved. *Labellum* membranous, pink, trumpet shaped, enclosing the column at base, distally spreading and 3-lobed; side-lobes narrow, upturned, acute to obtuse, entire or slightly uneven; mid-lobe broad, flat, fimbriate; inner surface with 3 distinct and several other indistinct nerves, and with a dense cover of purplish papillate hairs. *Column* pinkish, subcylindrical, glabrous, 7-8 mm. long, about 2 mm. in diam. *Clinandrium* elliptic, its margins denticulate. *Anther* squarish, about 1.5 mm. long; *pollinia* yellow. *Ovary* green, oblong obovoid, 3-ribbed, 4-5 mm. long, about 2 mm. broad. *Fruit* not seen.

Occurs in small groups in shade, on wet humus, amidst bamboo jungle, and on hill slopes amidst bracken and lantana, from about 600 m. to 1200 m. altitude (2000'-4000'). In flower, May to June; in leaf, June to December. Sikkim-Himalaya, and Southwestern India. Java. New Guinea.

SPECIMENS STUDIED

MYSORE: Coorg district: Mercara, A. S. Rao 74436; Mysore district: Biligirirangan hills, Kyathe-devaragudi, Rolla 73617; Shimoga district: Tirthahalli, Kimmane, Sundara Raghavan 81049; Tirthahalli, Sundara Raghavan 81128.-(BSI). N. Kanara district: Dandeli, Kapadia 1690; Sampkhand, Hallberg & McCann 34207; Yellapur, Fernandez 1627; Kapadia 1987, 2012, 2014, 2242.-(BLAT.).

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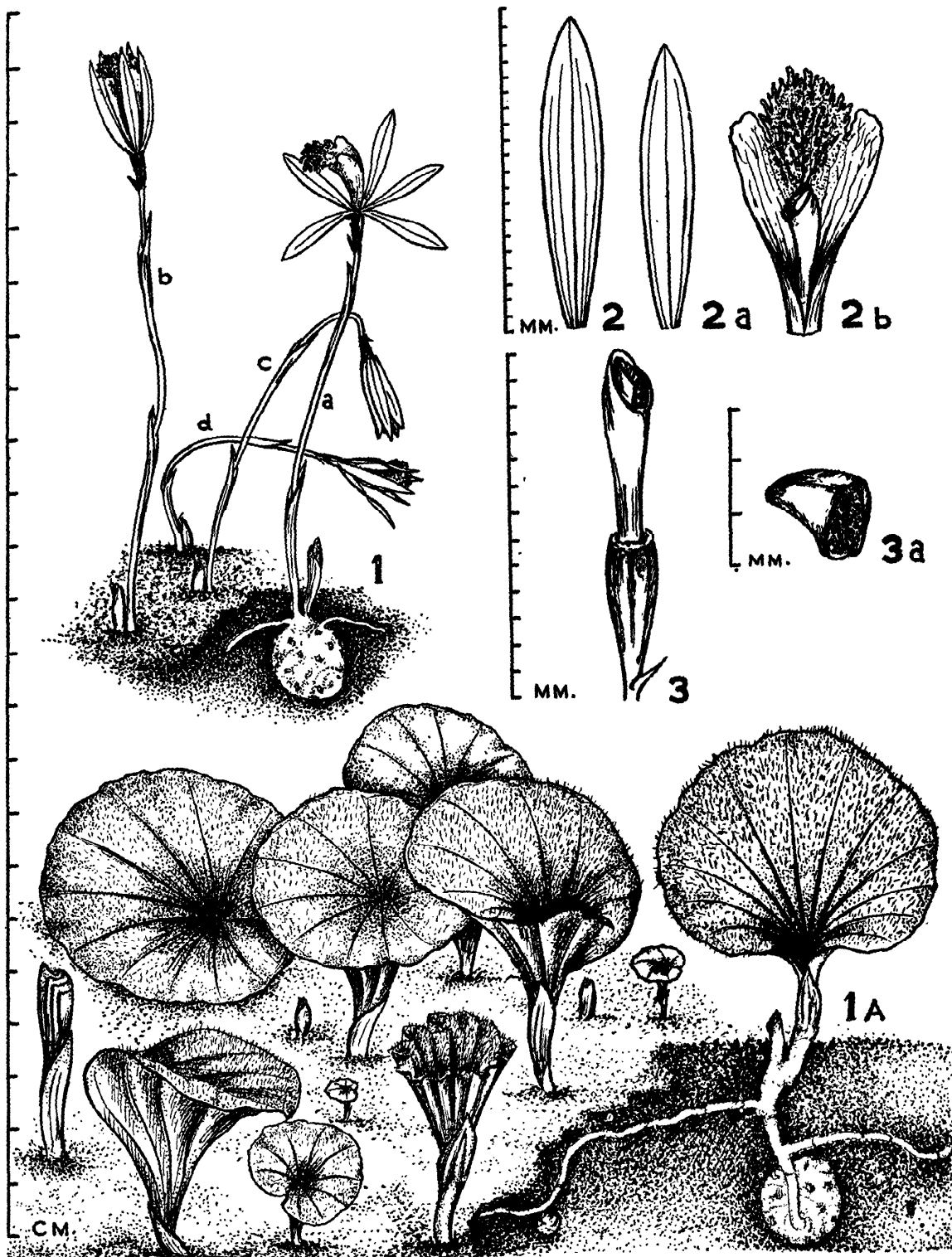


PLATE I
Nervilia crispata (Bl.) Schltr.

1. 'a-d. Plants in flower ; showing the position of freshly opened, and older flowers. 1A. Plants in leaf, showing the shape of leaf-buds, in young and old leaves. 2. A sepal. 2a. A petal. 2b. Labellum spread out with the adherent Column inside. 3. Ovary and Column. 3a. Anther. (Drawings from live plants, and from A. S. Rao 74436).