Zygopetalum Tatei A. &. S., sp. nov. Rhizoma repens. Pseudobulbi approximati, angusti, in apice diphylli, in sicco profunde sulcati. Folia oblanceolata vel elliptica, parvula, acuta, plus minusve petiolata, nervosa, subcoriacea. Scapus folia multo excedens. Racemus laxe pauciflorus. Flores speciosi. Perianthii segmenta late patentia. Sepalum dorsale lanceolatum. Sepala lateralia ovato-lanceolata. Petala oblonga vel oblanceolato-oblonga. Labellum cum hypochilio minuto, callo flabellato omnino occupato; epichilium reflexum grande patens, perlate ovato-rhombicum vel reniforme. Columna apice bialata. Pollinia quattour.

Plant vegetatively small for the genus. Roots fibrous, flexuous, glabrous. Rhizome creeping, woody, concealed together with the lower part of the pseudobulbs by imbricating scarious ovate or triangular sheaths. Pseudobulbs approximate, 3.6 to about 6 cm. long, bifoliate at the apex, cylindric and very deeply sulcate (perhaps tetragonous) in the dried condition, sometimes slightly dilated below. Leaves oblanceolate to elliptic, 7.9-13.7 cm. long to the point of insertion, up to 2.3 cm. wide, acute, commonly gradually narrowed below to a more or less distinct petiole, rigid-nervose, subcoriaceous, with 3 nerves rather conspicuous beneath. Scape about 35-49 cm. tall excluding the flowers, base rising from below the pseudobulb and concealed by scarious sheaths, provided with 2-3 remote, tightly clasping tubular membranaceous sheaths. Raceme loosely 2-6-flowered. Rachis flexuous, up to 11.3 cm. long. Floral bracts ovate or triangular, acute or acuminate, spreading, concave, much shorter than the pedicellate ovary. Flowers with spreading segments. Dorsal sepal lanceolate, 2.41-2.7 cm. long, 8-9.5 mm. wide, acuminate, 5-7-nerved. Lateral sepals ovate-lanceolate, 2.5-2.85 cm. long, 1-1.1 cm. wide, acuminate, dorsally carinate above, the keel ending in a mucro, 7-8-nerved. Petals oblong or oblanceolate-oblong, slightly oblique, 2.3-2.65 cm. long, 7.1-8.4 mm. wide, acute, minutely apiculate, 5-7-nerved. Labellum divided into a very short basal portion or hypochile subparallel to the column and a large spreading epichile; hypochile 3.7 mm. long, entirely occupied by a fleshy fan-shaped, radiant-ribbed callus 7 mm. long, whose apex is high and free; epichile from a cuneate base abruptly ovate-rhombic or reniform, about 1.8-2.38 cm. long, 2.3-2.8 cm. wide, abruptly and more or less conspicuously acute or apiculate, more or less undulate on the margins. Column stout, much dilated at base, arcuate, about 1.1 cm. long at the back, with a pair of porrect fleshy triangular-rounded wings above. Pollinia 4, in 2 pairs of 1 large and 1 small, pyriform-ovoid.

Slopes of Ridge 25, 5500-6000 ft., 423 (type), flowers white with purple spots; crest of Ridge 25, 6300 ft., 468, 2-3 ft. tall, flowers 3 or 4, 1.5 inch in diameter, lip white, petals green, blotched with purple. This latter collection has apparently a somewhat reniform but imperfect lip. Zygopetalum Tatei is unusual in having short leaves and relatively elongate scapes. In floral structure it seems quite similar to Z. maxillare Lodd.