
# *Aloe spinitriaggregata* J.-B. Castillon, A new *Aloe* (Asphodelaceae) from Ikalamavony area

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## Introduction

Many areas of Madagascar still remain unexplored for the moment and, even if the trend for the search for new *Aloe* is the systematic examination of all rocky massifs and forests seen on the maps - I think in particular of the hardly explored mountainous or forest solid masses of Andohahela, Andringitra, Kalambatitra or Tsaratanana - the immense undulating zones extending as far as the eye can see should not be forsaken: even if they don't seem favourable to *Aloe* at first glance, they may contain still unknown plants.

The only problem is how to explore those areas, as the lack of access roads and the growing insecurity make them very difficult to reach. In this current context, who could have thought of the discovery of two new *Aloe* coming from hills near Ikalamavony? The following paper is devoted to the description of one of those two new species.

## *Aloe spinitriaggregata* J.-B. Castillon, **spec nov**.

**Diagnosis :** *Aloe fievetii* var. *ambatofinandrahanense* affinis sed ab ea specie, planta rosulata, axe floriferente minore, foliis brevioribus et basi latioribus, differt ; ab alteribus speciebus in Madagasikara insula, foliorum margine ferente bi-tri-aggregatos aculeos, praecipue distinguitur.

**Typus** : J.-B. Castillon, May 2010, N° 47 ( Holo TAN ; Iso P ).

**Locus**: Herbaceous rocky hills around Ikalamavony.

**Etymology**: Thorns gathered in threes.

## Description:

Plant in general stemless or with a very short 6-10 cm stem bearing 2-4 offsets on its buried part. 7-10 leaves, green to reddish, thick and very fleshy, the lower ones largely spread out, the upper ones slightly drawn up and/or curved, 12-18 cm long and 3-6 cm broad at base, triangular, rounded at the apex; higher face generally plane, green or reddish, lower face slightly convex, of the same colour; sap colourless; margins with spines laid out in two distinct ways: in juvenile specimens, the reddish spines 3x3 mm are almost contiguous, with older and stronger plants, the spines can be simple but are in general grouped in two or three, on a trapezoidal basis 3 mm broad and 2 mm high - this character is found only, to my knowledge, on this single *Aloe* (or maybe also in some forms of *A. versicolor*) -.

Inflorescence 40 cm long, with 1-2 ramifications; main stalk 20 cm long, without sterile bract, plano-convex at base, 1·5 cm broad and 1 cm thick; a bract supporting each

***Aloe spinitriaggregata,*** general habit of growth (photo : JB. Castillon).

***Aloe spinitriaggregata,*** characteristic arrangement of the thorns & raceme. (photos : JB. Castillon).

***Aloe spinitriaggregata,*** plants in flowers. (photo : JB. Castillon).

*F*rom buds to faded flowers. (photos : JB. Castillon).

branch, triangular, 2 cm broad at base and 1 cm in height, more or less scarious with several black veins; secondary stalks 15 cm long, bearing 3-10 scarious sterile bracts 6x6 mm. Raceme sub-capitate, rachis very short (1-2 cm), very dense and carrying 20-29 pink-red flowers; buds erect, open flowers first erect then hanging. Floral bracts scarious, with 4-6 black veins, 2 mm broad at base and 3 mm high, the lower bracts being slightly broader and higher. Pedicel red 2·5 cm long and 1mm thick. Perianth reddish, ± 2 cm, obconic at base, cylindrical campanulate, 4 mm broad at base, 8 mm at the open throat; external segments free, red, 2 cm long and 4 mm broad; internal segments pink-white, slightly broader, rounded and curved at the end, with a hull, red at base and greenish higher. Filaments green-yellow; anthers hardly exserted, 2x1 mm. Style a little shorter. Ovary olive green, conical truncated at the end, 4-5 mm high and 2 mm broad at base. Fruit: a capsule.

**Discussion**: This *Aloe*, for the shape of its racemes and its flowers, belongs to the group of *Aloe fievetii* (group also including *A. andringitrensis*, *A. hoffmannii*, *A. johannis* and *A. parallelifolia*); the closest species are undoubtedly *A. fievetii* and *A. hoffmannii* but those two *Aloe* both have habits of growth definitely different, with stems much longer and leaves erect and much more elongated. The varieties *A. fievetii* var. *fievetii* and *A. fievetii* var. *altimatsiatrae* have rosulate or cauline dispersed leaves, rather long (35 cm), triangular, acuminate, not very thick; *A. fievetii* var. *ambatofinandrahanensis* has leaves shorter and thicker, but always erect and elongated, with generally elliptic cross section, and strong thorns.

*A. hoffmannii* has erect cauline dispersed leaves with parallel margins. Our new plant has a thick leaf, plane on the upper side, slightly convex on the lower side, much broader at base and shorter than that of all the preceding species, a rosulate habit much more compact and more open, a short creeping stem, and is above all characterized by its thorns often gathered by 2 or 3. Its flowers are rather pink-red like those of *A. hoffmannii*.

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