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RESEARCH ARTICLE

***Abrus precatorius* L. var. *albo-spermum* Hassan, Rahman et Afroz, var. *nov.* (FABACEAE): A NEW VARIETY RECORDED FROM BANASKANTHA, GUJARAT**

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Abstract

A new variety *Abrus precatorius* L. var. *albo-spermum* Hassan, Rahman et Afroz, var. *nov.* is first time recorded from Banaskantha district based on literature review of North Gujarat. In North Gujarat this species has not been recorded in flora of Banaskantha. *Abrus precatorius* L. var. *albo-spermum* Hassan, Rahman et Afroz, var. *nov.* is closest to *Abrus prectorius* L., but differs by its white coloured oval shaped seed, short gynoeceum which half the length of longer filaments and with a short style.

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Introduction:-

The genus *Abrus* (Fabaceae) was erected by Adanson in 1763 based on *Glycine abrus* L. (Breteler, 1960) *Abrus* is a small genus consisting of 17 species and wide spread in tropical and subtropical regions predominantly in Asia. *Abrus* is represented by two species, viz. *Abrus precatorius* L. and *Arbus pulchellus* Wall. ex Thw. (Ahmed et al., 2009). Hooker (1876) in his flora of British India reported *Arbus pulchellus* Wall. ex Thw. Chittagong *Abrus precatorius* L. is recorded only one in Gujarat (Shah, 1978).

During field work the author collected unknown specimen from Virampur village of Amirgadh taluka, in Banaskantha district, throughout August 2022, of *Abrus* species. On critical study of these specimens using relevant taxonomic literature (Shah, 1978; Cook, 1903), online e-floras (e-floraofindia) and illustrations, the specimen was identified as *Abrus precatorius* L. var. *albo-spermum* Hassan, Rahman et Afroz, var. *nov.* Exploration of floristic literature (Dabgar, 2008; Patel, 2008; Meena, 2012) revealed that this species has not been recorded from whole Banaskantha till date. Therefore, *Abrus precatorius* L. var. *albo-spermum* Hassan, Rahman et Afroz, var. *nov.* reported here the additional report of the state of Gujarat. A detailed taxonomic description and photographs of diagnostic characters of the species is provided here to August 2022 this record for Banaskantha and facilitate its easy field identification.

Description:

Abrus precatorius L. var. *albo-spermum* Hassan, Rahman et Afroz, var. *nov.* is distinct by its entirely white seeds, gynoeceum length which is half the length of the longer filaments and a short style. A undershrub with twining stem, and on support grows as a dextrose climber. Leaves paripinately compound, alternate; leaflets or linear-oblong, usually 10-20 in number, occasionally more, opposite, very sweet in taste. Flower in pedunculate recemes, shortly pedicellate, bisexual, complete; sepals 5. 2-4 mm long; petals 5, standard petal 10-11x7-8 mm, pinkish-white, wing

petal 6-8x2 mm, keep petal 7-8x3-4 mm, elliptic; stamen 9 (alternately long and short, the vexillary, filament absent). Gynoecium short, 2.5-3.5 mm, half the length of longer filaments; style short, 0.5-0.8 mm long; carpel 1, placentation marginal. Fruits oblong pods, turgid, usually 4-6 seeded. Seeds purely white, oval, smooth.

Flowering & Fruiting:

August –October

Table 1:- Comparison of *Abrus precatorius* L. and *Abrus precatorius* L. var. *albo-spermum* Hassan, Rahman et Afroz, var. *nov.*

<i>Abrus precatorius</i> L.	<i>Abrus precatorius</i> L. var. <i>albo-spermum</i> Hassan, Rahman et Afroz var. <i>nov.</i>
1. Seeds two-third scarlet and the rest jet-black, almost round.	1. Seeds entirely pure white, oval
2. Gynoecium long, 6-7 mm.	2. Gynoecium short, 2.5-3.5 mm.
3. Gynoecium more or less equal to length of longer filaments.	3. Gynoecium half the length of longer filaments.
4. Style long, 2.5-3.0 mm long.	4. Style very short, 0.5-0.8 mm long.
5. Lower part of the wing petal narrower.	5. Lower part of the wing petal broader.
6. Keep petal ovate.	6. Keep petal elliptic.

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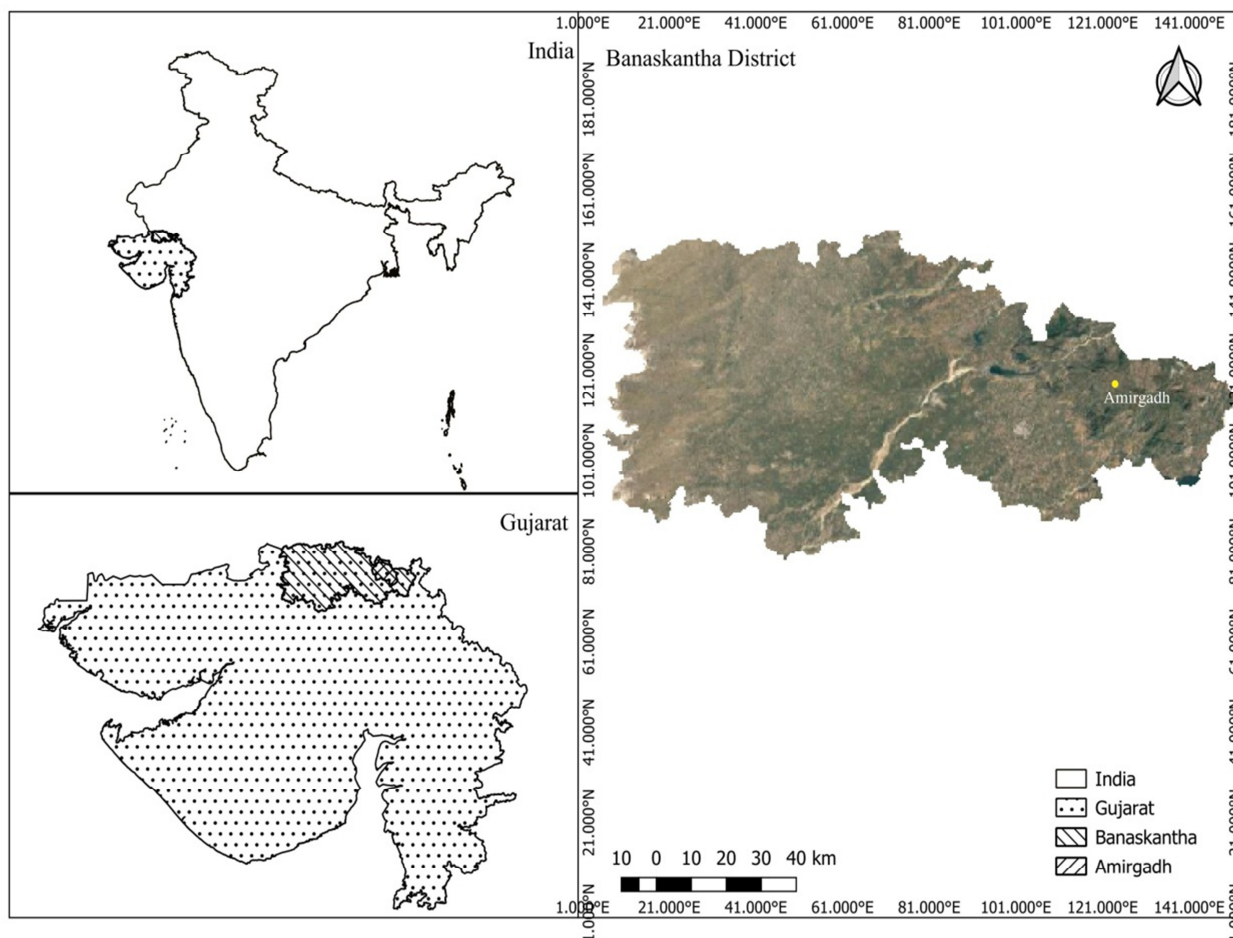


Figure 1:- Distribution map.

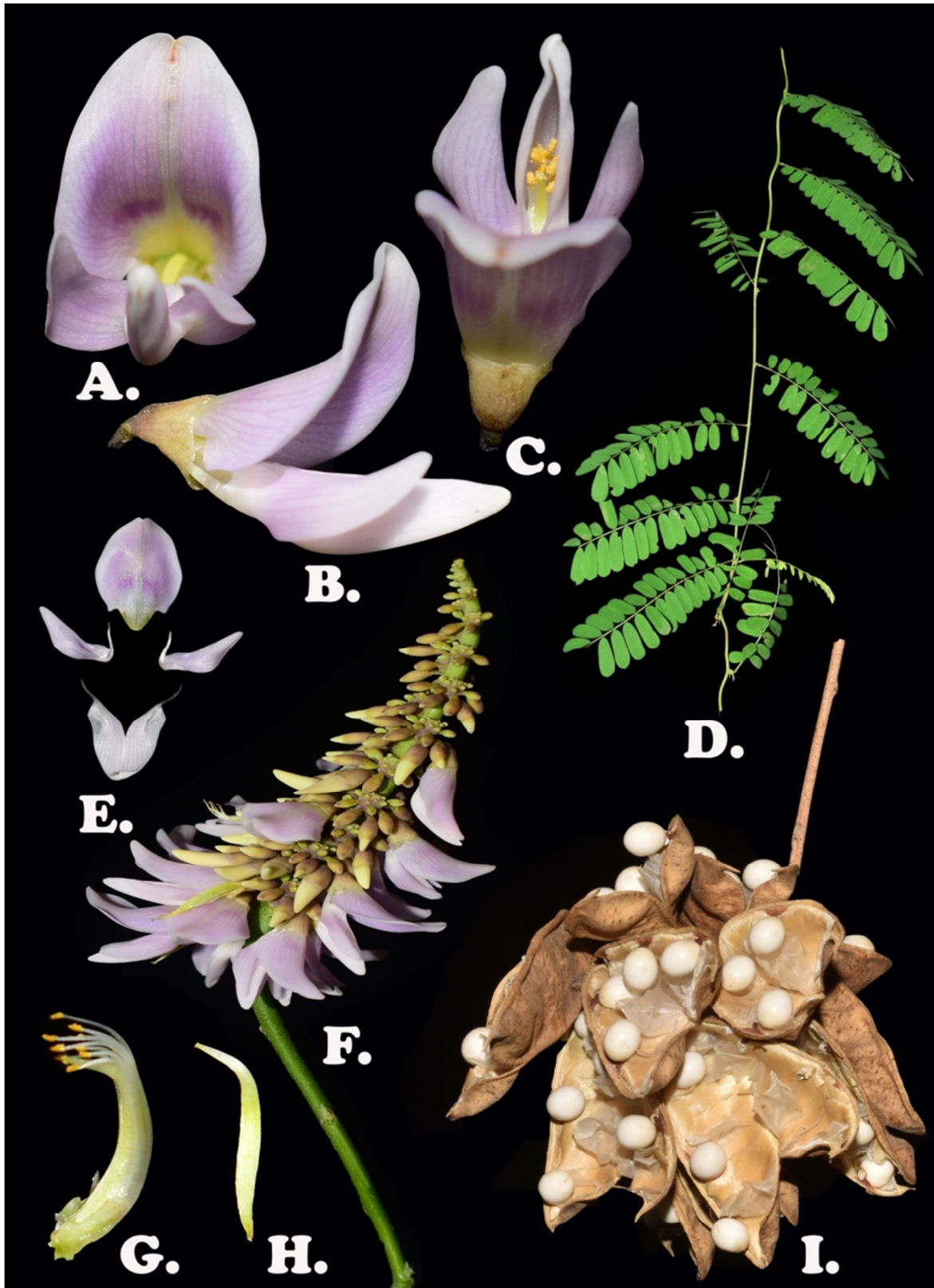


Figure 2:- *Abrus precatorius* L. var. *albo-spermum* Hassan, Rahman et Afroz var. nov.

A. Flower **B.** Flower Side view **C.** Erect Flower **D.** Twing **E.** Corolla **F.** Inflorescence **G.** Androecium
H. Gynoecium **I.** Fruit.

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