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A first report of gall weevil *Sternuchopis collaris* (Pascoe), (Curculionidae: Coleoptera) on Indian bean (*Lablab purpureus*) in Sabarkantha district, Gujarat, India

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Abstract
The Experiment was conducted during month of August and September, 2018-19 at different villages of Sabarkantha district, Gujarat on the pests of Indian bean (*Lablab purpureus*). Among the different pests observed, a new insect *Sternuchopis collaris* (Pascoe) was found on Indian bean. Damage is caused by grubs of *Sternuchopis collaris*. It was bored into the stem resulting in the formation of a gall. Young plants were girdled by the adult so the upper portion of the plant was wilted and dried. *Sternuchopis collaris* body medium sized, pronotum brown head, snout, antennae, legs and elytra black. Head was small produced in to cylindrical rostrum narrow at base and broader at the tip. The present study was first report of *Sternuchopis collaris* on Indian bean from sabarkantha, Gujarat, India.

Keywords: *Sternuchopis collaris* (Pascoe), gall weevil, Indian bean

Introduction
Indian bean [*Lablab purpureus* (L.) Walp.] belong to the family leguminaceae and sub family Fabaceae. It one of the most ancient pulse crops cultivated. In western countries, it is called Dolichos bean. Weevils belonging to superfamily Curculionoidea contains a significant proportion of all known species of order Coleoptera [5]. Curculionoidea family has more than 85000 species in the world [2]. The superfamily Curculionoidea has 21 families of which Curculionidae is the largest with 4144 genera. The gall weevil *Alcidodes collaris* (Pascoe) is becoming an important culprit in the seedling stage and also vegetative stage of the crop grown especially in the northern transitional belt of Karnataka causing 25-30 per cent reduction in plant population. It attacks the basal region of seedlings and resulting in the formation of galls at the collar region leads to dislodging and drying of plants [3, 4]. Adult nibbles the seedling at growing tips at later stages leads to drooping of young tips. The gall weevil damages 15 to 30 days old plants by scraping the basal portion of the stem for egg laying. After hatching, grubs feeds on internal tissues of the stem leads to gall formation at the collar region finally dislodging and drying of the plant occurs [1]. Since the pest inhabits in the soil near the basal portion of stem, makes difficult for its prediction of infestation, distribution and damage. It is very important to know the stage and time of occurrence of gall weevil which helps in effective control of the pest.

2. Materials and methods
The present study was conducted during month of August and September, 2018-19 at different villages of Sabarkantha District, Gujarat, India. The collection of *Sternuchopis collaris* was done with two sampling methods *viz.* sweep net and hand picking. The collected samples were killed in killing jar and pinned properly on right elytra. The morphological characters of the said specimens were studied under the microscope in the entomology laboratory. The collected specimens were sent to National Bureau of Agricultural Insect Resources, Bangalore for the identification of the weevil.

3. Results
During the observations, the infestation of *Sternuchopis collaris* was noticed on Indian bean (*Lablab purpureus*) field in the month of August, 2018 to September, 2018. *Sternuchopis*

collaris cause damage to the stem just above one to two feet height from the soil. The highest incidence was observed on August, 2018.

3.1 Nature of damage
The grubs of *Sternuchopis collaris*, bored into the stem resulting in the formation of a gall (Fig. 1). Bore into pods and feed on seeds. Young plants were girdled by the adult so the upper portion of the plant wilted and dried; stem breakage may also occur.

3.2 Morphological characters
Body medium sized, 9mm in length, pronotum brown, head, snout, antenna, legs and elytra black. Antenna is geniculate, narrow at the base. Head is small produced into a cylindrical rostrum narrow at base and broader at the tip. Eyes black, depressed present at the base of rostrum. Elytra prominent, legs black, femur large, stout with femoral spine on the ventral side. Tibia is elongated, cylindrical with two curved tibial spines. Tarsi is four segmented and last segment with curved claw (Fig. 2).

4. Discussion
There was no report regarding infestation of *Sternuchopis collaris* on Indian bean from Gujarat. Therefore, the present study was the first report of *S. collaris* infestation on Indian bean from this region. In the earlier first time reported of incidence of gall weevil, *Alcidodes collaris* (Pascoe) on pigeon pea crop at northern transitional tracts of Karnataka [3].

Fig 1: Indian bean stem damaged by *Sternuchopis collaris* (Pascoe)

Fig 2: Gall weevil, *Sternuchopis collaris* (Pascoe)

5. Conclusion
The paper deal with one species viz., *Sternuchopis collaris* (Pascoe) Curculionidae recorded from different villages of Sabarkantha District under jurisdiction Krushi Vigyan Kendra, S. D. Agricultural University, Khedbrahma. Therefore, new distribution record of Curculionidae came to light.

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