SCIENTIFIC NOTES

ROVER BEETLE STAPHYLINIDAE LAMEERE MIMICKING WASP IN NILGIRI HILLS WESTERNGHATS INDIA

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Introduction of Rover Beetle Mimicking:

Rover beetle is a least studied insect, that mimics ant and termites to live in and prey on this colonies. Even if we tried to give more importance to the diversity of ant social parasites and the other kinds of myrmecophiles not tackled in the first issue, Coleoptera remains the most documented group among the myrmecophiles and various contributions still deal with beetles in this second issue. Though the first pioneering lists of ant associated beetles by Markel [F. Markel et al., 1841, 1844] undetected ancestral rove beetles entered colonies to prey on ants or termites using their chemical gland for defense. But over time some beetle species evolved a different approach they began to live in the colonies masquerading as termites and ants allowed the beetles to survive in the ant colonies were major evolutionary changes in body and behavior. The defensive gland at the end of the abdomen evolve to produce chemicals that made the beetles smell like colony members instead of harming the ants, they tricked them. In some cases, the ants were even drawn to the smell and their bodies were transformed legs and antennae grew longer their abdomen slimmed they result they come to resemble the ants even more surprising is that this wasn’t single event passed on from one ancestral line it happened many times over millions of years, at least 12 separate lineages of rove beetles have independently gone through the same transformation beetle to a social insect living with ants or termites genetic changes caused there transformation about these beetles compared to almost all other forms of animal life that kind of poises them predisposes them evolutionarily to be able to do this. How they’ve completely integrated themselves a members of the colony. The enter into an ant nest by saying series of glands to chemically persuade the ants to adopt them when first encounter is an ant a beetle meets any aggression with an upturned tip of its abdomen. This is the location of what’s known as the appeasement gland complex. The secretions from this gland seem irresistible to the ants who busily lick away while the beetle reaches back and taps the ant with its antenna after this, the beetle grant the ants access to the sides of their abdomen, which are lived with tufts of hair emerging from the set of glands that are known as the adoption glands. The ant lick the secretion from these glands and they grab the beetles by these tufts of hair and transpor into around their nests once they’re inside of the nest that beetles take advantage of the ants method of food sharing, mouth to mouth regurgitation, also known as trophallaxis the beetle mouth parts are through to be specialized for stimulating food sharing they coax ants to feed them
like the would their own larvae or nest mate adults unlike the ants the beetle don’t share any food back their existence in the nest is completely parasitic and predatory.

This rover beetle is similar in physique to wasps, so this beetle look like wasps (Fig. 1). This studies have not been carried out by any researchers in India. On 10-10-2020 during the survey in Ooty Nilgiri Hills India we are encountered this rover beetle mimicking wasp. Diverse taxa includingmites, silverfish, flies, wasps, and beetles exploit this resource, employing either defensive morphologies, or behavioral and chemical strategies to worker hostility. A dramatic manifestation of this lifestyle occurs in numerous genera of the staphylinid subfamily Aleocharinae, where the beetles anatomically mimic their host ants and are recognized and accepted by them (Seevers, 1965; Kistner, 1979; Parker, 2016). Some of these species closely resemble wasps in color pattern, morphology, and walking and flight behavior that human observers may be deceived (Linsley, 1959). Mimicry of wasps is also particularly common among diurnal cerambycids that feed on pollen, and such vespiform mimics have been described from several genera in the cerambycid subfamilies Cerambycinae, Lepturinae, and Necydalinae (Švácha & Lawrence, 2014).

Figure 1. This rover beetle is similar in physique to wasps, so this beetle look like wasp.

LITERATURE CITED