



On latex licking in the five-striped palm squirrel (*Funambulus pennantii*)

The five-striped palm squirrel, *Funambulus pennantii* and three-striped palm squirrel, *F. palmarum*, consume liquid food in the form of nectar and latex in addition to solid food (Prater, 1980; Balasubramanian, 1995; Sharma, 2007). The latexy secretion from the abaxial surface of the leaves at the junction of petiole and lamina of the leaves of the Banyan, *Ficus benghalensis* (Moraceae) is licked by both *F. pennantii* and *F. palmarum* as food. A scar is seen on the licked site of every leaf which appears to be a result of repeated licking and drying of the residue of the secretion (Sharma, 2007).

While studying this behaviour in other species of *Ficus* in the state of Rajasthan, it was noticed that leaves of *Ficus mollis* are also licked. A prominent scar is visible on the licked site of *Ficus mollis* leaves towards abaxial surface at the junction of petiole and lamina. This licking behaviour of *F. pennantii* was seen in the Sariska Tiger Reserve, Renagiri and Siliser in Alwar District; Nahargarh and Jamwa Ramgarh Wildlife Sanctuaries in Jaipur district; Ranthambore National Park and Sawai Man Singh Wildlife Sanctuary in Sawai Madhopur district; and Patan in Sikar district.

As many as 15 species of *Ficus* are found in Rajasthan, namely *F. amplissima* Smith, *F. arnottiana* (Miq.) Miq., *F. benghalensis* L., *F. drupacea* Thunb., *F. hispida* L.f., *F. microcarpa* L.f., *F. mollis* Vahl, *F. palmata* Forsk., *F. racemosa* L., *F. religiosa* L., *F. rumphii* Blume., *F. tsjahela* Burm.f., *F. virens* Ait., *F. pumilla* L. and *F. carica* L. (Shetty & Singh, 1991). Out of 15 species, only two, *F. benghalensis*, and *F. mollis*, are tapped for liquid food by the squirrels in the state.

Why are only two species selected to get the liquid food from the abaxial surface of leaves at

the junction of petiole and lamina and not the others? The answer is hidden in the glandular nature of the petioles of the leaves of these two species. Both these *Ficus* species have a secretory gland at the junction of petiole and lamina. A longitudinal gland with a depressed centre (when fresh) is situated at the base of midrib or at the junction of several principle nerves beneath *Ficus mollis* leaves. Similarly, a large flat, smooth gland is present at the confluence of the many nerves which meet in *F. benghalensis* leaves towards the abaxial side (Sexena & Brahmam, 1995).

The squirrels like the latexy secretion which provides them with nutrition. To get the nutrition from the leaves, the squirrels tap them when they are green and intact on the trees, and the latexy secretion is procured during the daytime.

Ficus mollis prefers almost vertical inaccessible sites in the Aravallis and Vindhya in the state, and is absent from the western Thar desert (Bhandari, 1990; Shetty & Singh, 1991; Singh & Shrivastava 2007; Tiagi & Aery 2007). The *F. pennantii* is a common squirrel in the distributional range of *Ficus mollis* in Rajasthan. It commonly feeds on the secretion produced by the glandular portion of petiole-lamina junction and, to get more and fresh secretion, it sometimes makes a gentle scratching using its incisors, as well as repeated licking, causing a prominent scar on the glandular portion of the leaves. The youngest leaves do not have scars indicating that the ability to secrete appears in the leaves only when they attain full development. Other *Ficus* species of Rajasthan do not have secretory petiolar glands and are not tapped by the squirrels and so remain scar-free.

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