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Food Preference of Indian Palm Squirrel *Funambulus palmarum* as Observed in a House Courtyard at Bikaner, Rajasthan

A Short Note

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The Indian palm squirrel or three-striped palm squirrel (*Funambulus palmarum*) is a species of rodent in the family Sciuridae found naturally in India and Sri Lanka. The squirrel is about the size of a large chipmunk, with a bushy tail slightly shorter than its body. The back is a grizzled, grey-brown colour with three conspicuous white stripes which run from head to tail. The two outer stripes run from the forelegs to the hind legs only. It has a creamy-white belly and a tail covered with interspersed, long, black and white hair. The ears are small and triangular.

Tecomella undulata (Family: Bignoniaceae) is a tree species, locally known as Rohida (Laghari, et al., 2013), found in Thar Desert regions of India and Pakistan (Chal et al., 2011). The trade name of the tree species is Desert teak or Marwar teak. It is a deciduous or nearly evergreen tree of arid and semi arid regions. At the time of flowering (December–February) it produces beautiful showy flowers in yellow-orange colours. In Rajasthan this species is found in Barmer, Jaisalmer, Jodhpur, Pali, and Ajmer, Nagaur, Churu, Sikar and Bikaner districts. *Tecomella undulata* is mainly used as a source of timber.

The present observations were made in the courtyard situated in the city of Bikaner (28°N latitude and 73°18'E longitudes), Rajasthan. The observations were made in the last week of March when only flowers were very prominently visible on the tree.

It is well known that *F. palmarum* squirrels eat mainly nuts and fruits. They tend to be very protective of their food sources, often guarding and defending them from birds and other squirrels. It has been reported that cattle and goats eat leaves of the tree *T. undulata* and camels, goats and sheep also consume flowers and pods. During the present study, it was noted that the squirrel nibbled and ate the flowers of this tree with great liking (Plate 1.). During this period the court yard also had various other flowers on herbs, shrubs and trees (Plate 2.), but the choicest food was documented to be the flowers of *Tecomella*.

Alkaloids are very useful pharmaceutical agents because of their biological activities (Gotti et al., 2006; Kumar et al., 2009) such as antimicrobial (Deng et al., 2011), antioxidant (Benabdesselam et al., 2007), analgesic potential and anti-inflammatory activities (Chen et al., 2012). Laghari et al. (2014) focused on the screening of alkaloids in flowers among the active constituents of this plant and identified eleven (11) structurally diverse alkaloids from them. The flowers could have medicinal properties and the squirrel might be exploiting the same. But nevertheless why these flowers are eaten by the squirrel???? The reason has yet to be explored.....

References

1. Benabdesselam, F.M., S. Khentache, K. Bougoffa, M. Chibane, S. Adach, Y. Chapeleur, H. Max, D. Laurain-Mattar 2007. Antioxidant activities of alkaloid extracts of two Algerian species of *Fumaria*: *Fumaria capreolata* and *Fumaria bastardii*. *Rec. Nat. Prod.*, 1: 28-35.
2. Chal, J., V. Kumar, S. Kaushik 2011. A phytopharmacological overview on *Tecomella undulata* G. Don. *J. Appl. Pharma. Sci.*, 1 : 11-12.
3. Chen, J., X. Wang, Y.G. Qu, Z.-p. Chen, H. Cai, X. Liu, F. Xu, T.l. Lu, B.-c. Cai 2012. Analgesic and anti-inflammatory activity and pharmacokinetics of alkaloids from seeds of *Strychnos nux-vomica* after transdermal administration: effect of changes in alkaloid composition. *J. Ethnopharmacol.*, 139: 181-188.
4. Deng, Y., Y. Yu, H. Luo, M. Zhang, X. Qin, L. Li 2022. Antimicrobial activity of extract and two alkaloids from traditional Chinese medicinal plant *Stephania dielsiana*. *Food Chem.*, 124: 1556-1560.
5. Gotti, R., J. Fiori, M. Bartolini, V. Cavrini 2006. Analysis of Amaryllidaceae alkaloids from *Narcissus* by GC-MS and capillary electrophoresis. *J. Pharm. Biomed. Anal.*, 42 : 17-24.
6. Kumar P., B. Sharma, N. Bakshi 2009. Biological activity of alkaloids from *Solanum dulcamara* L. *Nat. Prod. Res.*, 23 : 719-723.
7. Laghari, A.Q. , S. Memon, A. Nelofar, A.H. Laghari 2013. *Tecomella undulata* G. Don: a rich source of flavonoids. *Ind. Crops Prod.*, 43: 213-217.

8. Laghari, A.Q., S. Memon, A. Nelofar, A.H. Laghari 2014. Structurally diverse alkaloids from *Tecomella undulate* G. Don Flowers. *Journal of King Saud University-Science*, 26 (4): 300-304.



Plate 1. The squirrel nibbling the flowers of *Tecomella*



Plate 2. Showing flowers of *Jatropha* in close proximity but only flowers of *Techomella* are being eaten by the squirrel