

## Notes on the Diet of the Kashmir Rock Agama, Laudakia tuberculata (Gray 1827), in Himachal Pradesh, India

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The Kashmir Rock Agama, *Laudakia tuberculata* (Gray 1827), has been recorded in northern Pakistan, northern India (including the Western Himalayas, Punjab, and Uttar Pradesh), Nepal, China (Tibet), and eastern Afghanistan (Baig et al. 2012; Uetz et al. 2023). In India, this species has been reported in Himachal Pradesh's Trans-Himalayan Regions in Lahaul and Spiti, Kinnaur, and Chamba Districts at elevations as high as 3,650 m (Saikia et al. 2007; Singh and Banyal 2014). The IUCN Red List classifies the species as being of Least Concern (Das et al. 2021).

Laudakia tuberculata plays a crucial ecological role by serving as prey for predators including the Many Banded

Catsnake (*Boiga multifasciata*) and the Black-Headed Royal Snake (*Spalerosophis articeps*) (Kapoor et al. 2023). *Laudakia tuberculata* is omnivorous (Dodsworth 1913; Bhatnagar 1968; Waltner 1991; Eremchenko and Kästle 2002). However, Acharji and Kripalani (1952) found no vegetation in the diet of *L. tuberculata* in the Kullu and Kangra Valleys of the western Himalayas. Dodsworth (1913) noticed *L. tuberculata* frequently nibbling on flower petals in gardens and recorded a diet consisting of ants, butterflies, and other insects. Bhatnagar (1968) highlighted the seasonal variation in the composition and proportion of the diet by examining the gut content of 162 individuals collected near Dehradun,

Table 1. Food items of the Kashmir Rock Agama (Laudakia tuberculata) in India.

Food items	References
Ants, butterflies, and other insects	Dodsworth 1913
Insects, spiders, and annelids	Bhatnagar 1968
Cicada ( <i>Platylomia</i> sp.)	This study
Unidentified scorpion (Scorpiones)	Waltner 1991; Akram et al. 2020
Himalayan Ground Skink (Ablepharus himalayanus)	Waltner 1991
Tomato (Solanum lycopersicum)	Bashir et al. 2009
Prickly Lettuce (Lactuca serriola)	Bashir et al. 2009
Couch Grass (Cynodon dactylon)	Bashir et al. 2009
White Clover (Trifolium repens)	Bashir et al. 2009
White Mulberry (Morus alba)	Bashir et al. 2009
Common Fig (Ficus carica)	Bashir et al. 2009
Cabbage (Brassica oleracea var. capitata)	Bashir et al. 2009
Kale (Brassica oleracea var. acephala)	Bashir et al. 2009
Pink Periwinkle (Catheranthus roseus)	Vishwakarma et al. 2019
Panicled Foldwing (Dicliptera aff. paniculata)	Nawani et al. 2020; this study



**Figure 1.** Kashmir Rock Agamas (*Laudakia tuberculata*) preying on a cicada (*Platylomia* sp.) (left) and feeding on Panicled Foldwing (*Dicliptera paniculata*) (right). Photographs by Rahul Verma (left) and Virender Kumar Bhardwaj (right).

Uttarakhand, noting that Isoptera are consumed primarily during the hot season and Annelida during the monsoon; Orthoptera, Hymenoptera, and Coleoptera are consumed year-round. Waltner (1991) examined the stomach contents of 221 agamas, revealing that adults fed primarily on plant matter, whereas juveniles had a higher proportion of animal matter in their digestive tracts. Food items recorded in the diet of *L. tuberculata* are listed in Table 1.

Herein we present two additional observations of feeding *L. tuberculata*. The first occurred at 1721 h on 6 August 2023, when we observed an individual preying on a cicada (*Platylomia* sp.) (Fig. 1) in the village of Lagga, Chamba District, Himachal Pradesh, India (32.55427, 76.25785; elev. 1,885 m asl). This is the first documented record of a Kashmir Rock Agama preying on a cicada. At 1533 h on 18 October 2020, in the village of Bhanjraru, Chamba District, Himachal Pradesh, India (32.83759, 76.15251; elev. 1,802 m asl), we recorded a video (https://youtu.be/q6pyq7LqCPE) of a *L. tuberculata* feeding on Panicled Foldwing (*Dicliptera paniculata*). A screenshot from the video is in Fig. 1.

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