

## REFERENCES

- DURVE, V. S. AND BAL, D. V. (1962): Preliminary observations on the growth of spat of the oyster *Crassostrea gryphoides* (Schlotheim). *J. Mar. biol. Ass. India*, 4: 206-213.
- HORNELL, J. (1910): Note on an attempt to ascertain the principal determining factor in the oyster spawning in Madras backwaters (Madras Fish. Investigations, 1908). *Madras Fish. Bull.*, 4: 25-31.
- MENON, N. R., KATTI, R. J. AND SHETTY, H. P. C. (1977): Biology of marine fouling in Mangalore waters. *Marine Biology*, 41: 127-140.
- PAUL, M. D. (1942): Studies on the growth and breeding of certain sedentary organisms in the Madras harbour. *Proc. Indian Acad. Sci.*, 15B: 1-42.
- RAO, K. S. (1974): Mussels and oysters. In: The Commercial Molluscs of India. *Bulletin of the Central Marine Fisheries Research Institute, Cochin, India*, No. 25.
- RAO, K. V. AND NAYAR, K. N. (1956): Rate of growth in spat and yearlings of the Indian backwater oyster *Ostrea madrasensis* (Preston). *Indian J. Fish.*, 3: 231-260.

### 35. *GERANIUM PUSILLUM* L.—A NEW RECORD FROM GARHWAL HIMALAYA

For almost a century this pretty little *Geranium* has been known only from Kashmir, the description in the FLORA OF BRITISH INDIA being based upon a collection of Thomson from Kistawar 8000' (2440 m.). On the basis of this plant, Edgeworth and Hooker f. generalised the distribution as Western temperate Himalaya. Subsequently this species has been known from a few other localities, like Srinagar and Baramula, but all, in Kashmir.

The discovery of this species now, further South-east, in the Garhwal Himalaya, at Brahm Khal, Barkot—4000' (1220 m.), in Uttarkashi district, is of interest and support the original generalised distribution. It is very likely that this species will be found in other parts of the North-western Himalayas and to enable its identification, a detailed description is provided.

*Geranium pusillum* L., Syst. Nat. ed. 10, 2: 1144, 1759; Edgeworth and Hooker f. in Fl. Brit. Ind. 1: 432, 1875.

Deep-rooted, diffuse, much-branched, annual

herbs, becoming reddish or purple in age. *Branches* prostrate, very slender, pubescent. *Leaves* sparsely glandular, reniform to orbicular, deeply 5-9-lobed or partite; segments cuneate, 3-lobed, mid-lobes long, side-lobes very small; petiole 0.8-2 cm long; stipules short. *Flowers* in axillary peduncles, bluish-purple, small, 6-7 mm in diam.; sepals 5, 2 mm long, glandular-hairy; petals 5, much smaller than the sepals; stamens 10, 5 fertile, c 1 mm long. Fruiting pedicles deflexed. *Fruits* 0.9-1.3 cm long; young carpels hirsute, on maturity smooth; beak slightly hirsute. *Seeds* brown, ellipsoid, minutely granulate, c 1.5 cm long, c 1 mm wide.

Flowering and fruiting—April; common in open grassy slopes. *Arora, C. M.* 37825, Brahm Khal, Barkot, 23rd April 1968 (BSD).

## ACKNOWLEDGEMENT

We are grateful to Dr. A. S. Rao, Deputy Director, Northern Circle, Botanical Survey of India, Dehra Dun for guidance.

C. M. ARORA  
R. PRASAD

BOTANICAL SURVEY OF INDIA,  
NORTHERN CIRCLE,  
DEHRA DUN,  
February 7, 1977.





Arora, C. M. and Prasad, R. 1978. "Geranium pusillum New record from Garhwal Himalaya India." *The journal of the Bombay Natural History Society* 75, 523–523.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/187443>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/151875>

**Holding Institution**

Smithsonian Libraries and Archives

**Sponsored by**

Biodiversity Heritage Library

**Copyright & Reuse**

Copyright Status: In Copyright. Digitized with the permission of the rights holder

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.