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Record of microgastropod from the Arenaceous Member of the Tal Formation, Garhwal Syncline, Lesser Himalaya, India

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Lower Cambrian microgastropod *Pelagiella* sp. is recorded from the upper part of the Arenaceous Member of the Tal Formation, Garhwal syncline, Uttar Pradesh. It was earlier known from the overlying Calcareous Member.

THIS note records the Lower Cambrian microgastropod *Pelagiella* sp. from the greyish siltstone unit forming

the upper part of the Arenaceous Member of the Tal Formation exposed in a section southeast of Kauriyala

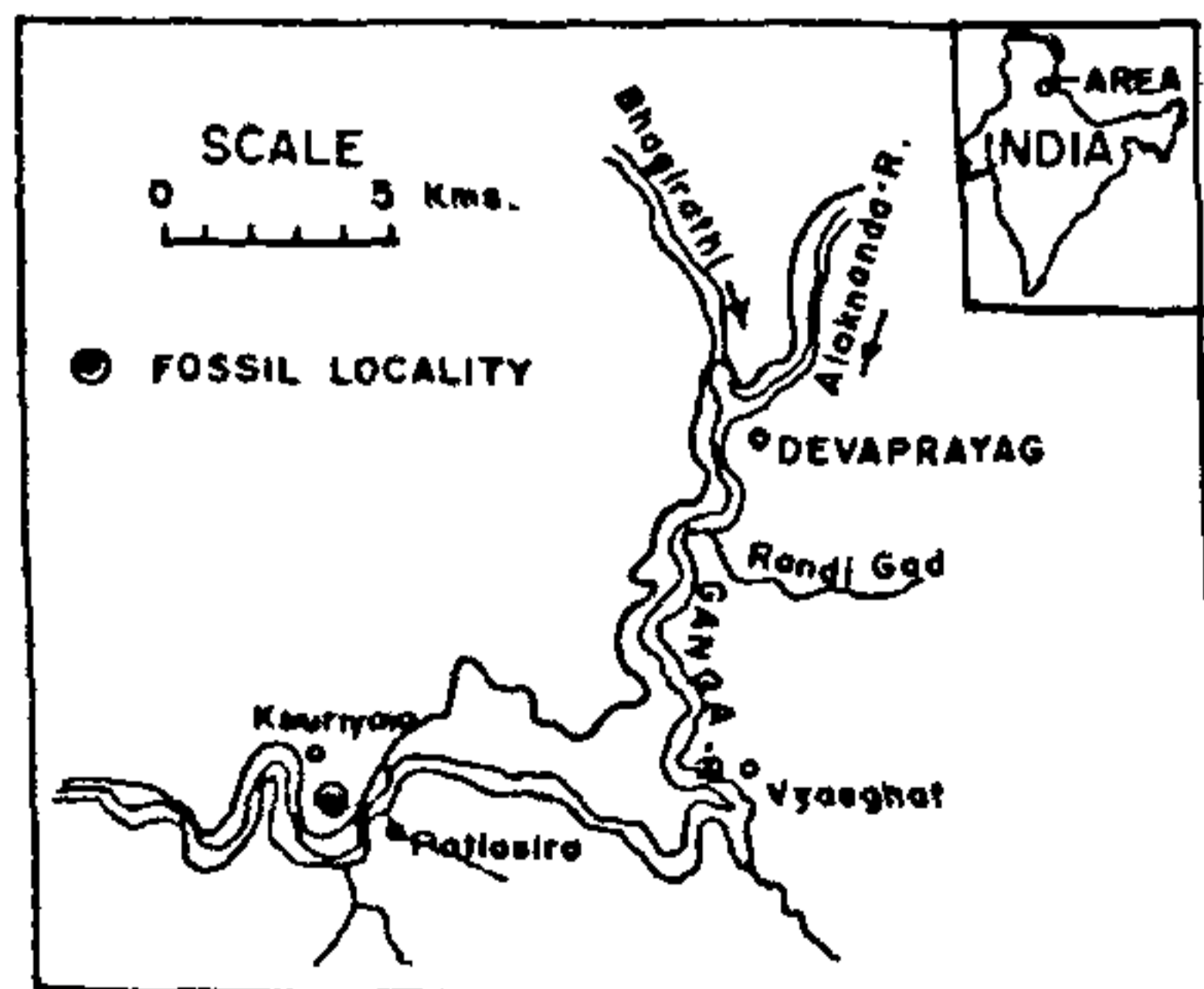


Figure 1. Location map showing fossiliferous bed.

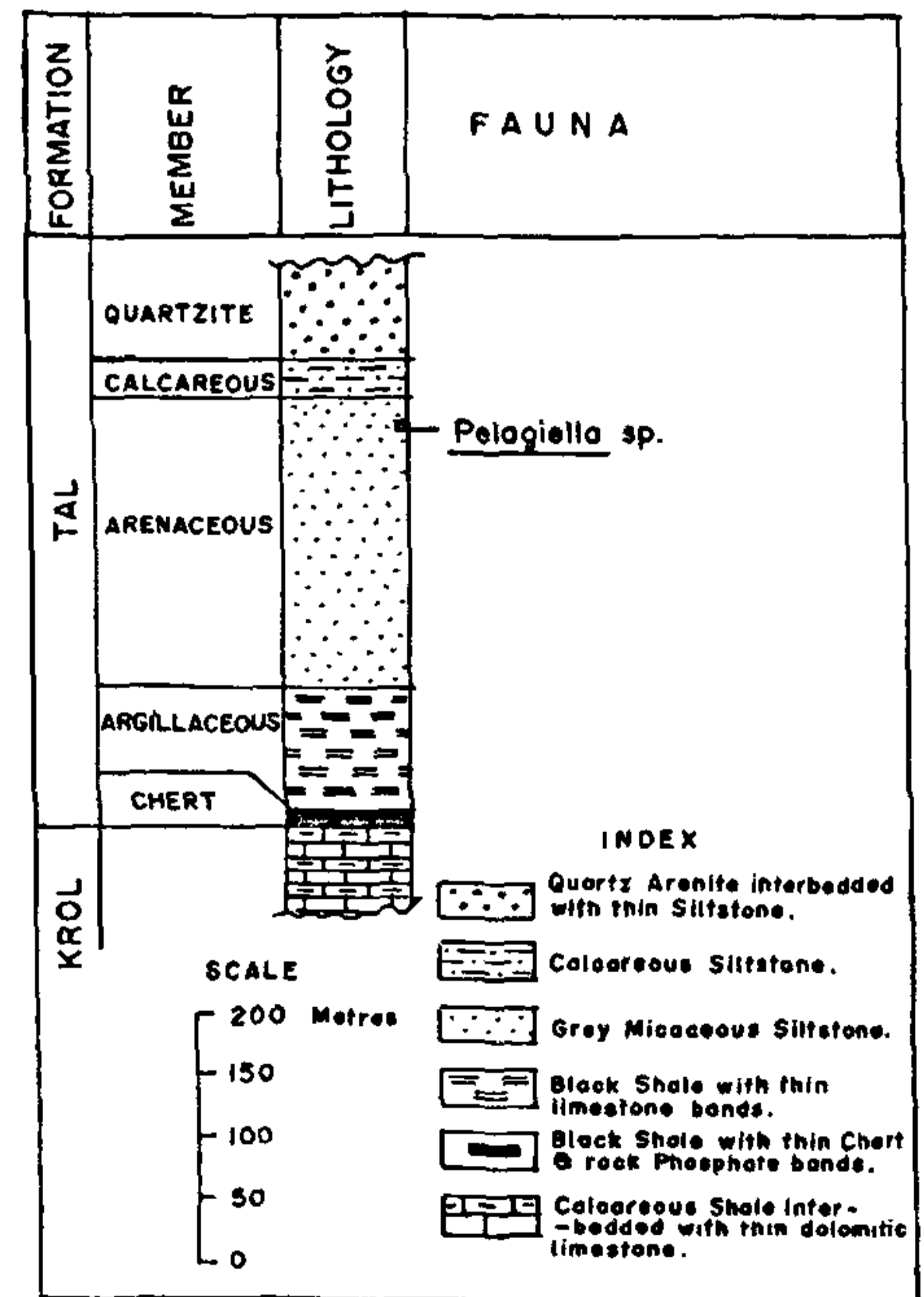


Figure 2. Stratigraphic section at fossil location showing position of fossils.

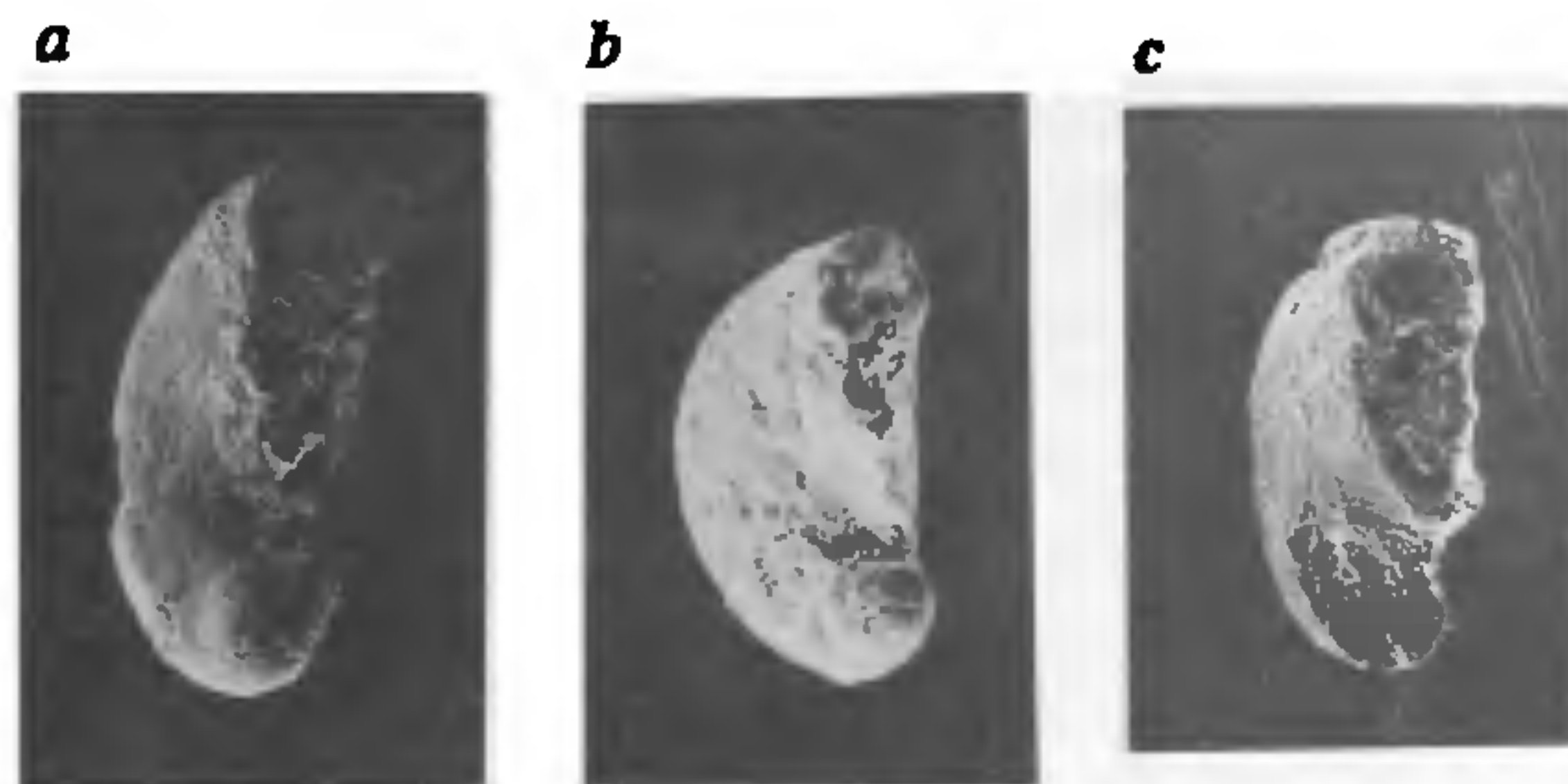


Figure 3a-c. Microgastropods from the Arenaceous Member of the Tal Formation, Garhwal Syncline, Lesser Himalaya a-c *Pelagiella* sp. ($\times 180$), apertural view.

village ($30^{\circ} 03' N : 78^{\circ} 00' E$) on the Rishikesh-Badrinath highway in the northern limb of the Garhwal syncline (Figure 1). The Lower Cambrian (Atdabanian Stage) pelagiellid gastropods were earlier known from the overlying Calcareous Member of the Tal Formation from the Garhwal syncline^{1,2}. The upper part of the Arenaceous Member of the Tal Formation also yielded small shelly fossils², redlichid trilobites³ and inarticulate brachiopods⁴ from the Garhwal syncline. Significantly, this fossiliferous unit is at a lower horizon in the Tal Formation, 27 m below the base of the Calcareous Member i.e. about 208 m above the base of the Arenaceous Member (Figure 2).

A total of 12 specimens have been recovered from the greyish siltstone unit. The microgastropod genus *Pelagiella* is sinistrally coiled, one to one and half whorls, rotelliform above and umbilical below; periphery rounded (Figure 3a-c). *Pelagiella lorenzi kobyashi* is known from the Atdabanian Stage in USSR, England⁵ and Iran⁶. However, some reviews of Siberian taxa indicate a Botomian and possibly latest Atdabanian age for this taxon^{7,8}. In the Chinese sections, *Pelagiella* sp. is recorded from the Qiongzhusian Stage of Emei Shan, Sichuan⁹.

The fossils are repositied in the Curatorial Division, CHQ, Geological Survey of India, Calcutta, bearing GSI type nos 20,448 (Figure 3a), 20,449 (Figure 3b) and 20,450 (Figure 3c).

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