

## Varkala cliff beach, southwest coast of India

Source: Journal of Coastal Research, 89(sp1)

Published By: Coastal Education and Research Foundation

URL: <https://doi.org/10.2112/0749-0208-89.sp1.i>

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**Varkala cliff beach, southwest coast of India.** Located at about 140 km from Kanyakumari, the southern tip of the Indian peninsula, the cliff beach is one of the top tourist destinations in India with facilities for surfing, paragliding, etc. Spread over a stretch of 6 km it has three pocket beaches skirting the Varkala cliff, which has geological importance. The 24 m tall red laterite cliff, adjacent to the Arabian Sea with natural springs is a classic example of Tertiary sedimentary formation of the Mio-Pliocene age (~23 million years old) and is known as Varkala formation. The Papanasham beach, bordering the northern part of the cliff has a Vishnu shrine of 2000 years old on the cliff and is a famous pilgrimage centre. The Geological Survey of India has declared the Varkala cliff as a national geological heritage site and the process for declaring this as a world heritage site by UNESCO, has been initiated. Erosion at the toe of the sea cliff caused by high wave activity during the monsoon season and isolated storm events along with increase in overburden pressure at the top due to anthropogenic influences have resulted in the receding of the cliff which is a matter of great concern. Efforts are being made to preserve and protect this national heritage site by adopting environmentally friendly measures without affecting the beauty of the beach. (Photograph taken by the team from the Coastal Processes Group, National Centre for Earth Science Studies, Kerala, India.)