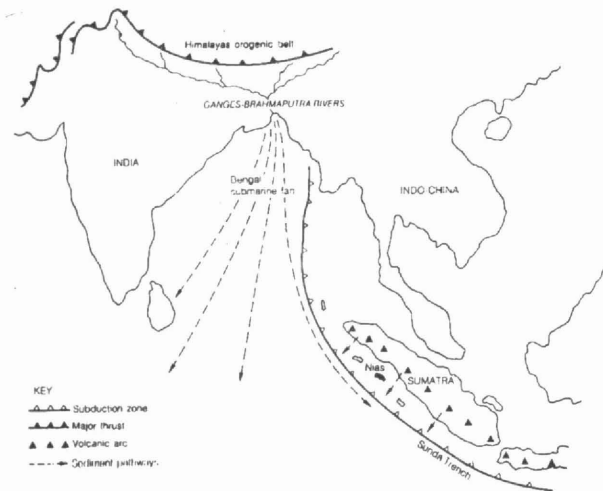


## CORRESPONDENCE

### THE SUNDA TRENCH AND THE ANDAMAN-NICOBAR ISLANDS

The accompanying figure (taken from Holmes' Principles of Physical Geology by D. Duff, 4th edition, 1993) shows the Sunda trench as skirting Sumatra, the Nicobar



and Andaman islands to their west. The map is interesting from two viewpoints. First, the extension of the subduction

zone of the Sunda trench to the west of the Andaman-Nicobar islands. Second, the definition of an accretionary prism in the offshore of Sumatra.

The northerly continuation of the Sunda trench skirting the Andaman-Nicobar islands would suggest subduction of the Indian plate beneath the Burma plate. If so, several seismic tremors experienced in Andaman and Nicobar islands, including those with a magnitude of 6 and above, may be the outcome of active subduction of the Indian plate beneath the Burma plate and so may not be aftershocks following the horrendous earthquake of Sumatra.

Development of accretionary prism in the offshore of Sumatra is considered to be represented by a series of islands. One such island is Nias in which Miocene rocks are interpreted as uplifted trench deposits. It will be interesting to know if such a feature is recognized in the offshore of Andaman-Nicobar islands.

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### SOME PERTINENT RESEARCH ISSUES ON THE EVOLUTION OF SAHYADRIS

The Geological Society of India organized a one-day workshop on *Sahyadri: Evolution and Erosional Processes* at Bangalore on the 9th May 2005. The event was co-sponsored by DST, DOD and the State Department of Mines and Geology. Several eminent earth scientists from India and abroad were present to share their knowledge and discuss on wide ranging issues and topics of geological and geophysical interest on the nature and evolution of the *Sahyadris*.

*Sahyadri* — the Western Ghat escarpment that cuts across varied lithologic and morpho-tectonic units is one of the mega-geomorphic features of peninsular India and represents the uplifted and denuded flank of the rift that took place in the late Cretaceous period (65 Ma ago). The classic two volume Memoir of the Geological Society of India (Memoir No. 43 - 1 & 2, 2001) offers comprehensive basic information on this feature. However, the *Sahyadris* seem to be offering a large number of research questions

for detailed investigation in view of the availability of better field and laboratory techniques and our own changing perceptions and understanding as per the views of the experts assembled at the meeting. In this short note the author has attempted to capture the concerns of some of the experts and listed them in the form of research topics/questions for the benefit of younger and active researchers to pursue the same to attain a better understanding of the *Sahyadris*, in terms of rate of uplift, erosion and trends in evolution and the role of various natural processes in shaping this topographic feature and the adjoining basins:

1. Western Ghats evolution - is it uniform or has it taken place in phases?
2. Scarp - is it retreating or has been stationary?
3. What is the quantum of material that has been removed and deposited in the large basins in the Arabian Sea? Is it increasing or decreasing in the recent times?