

transfer. The second correlation indicates that the reaction is fastest on  $\text{La}_2\text{TiNiO}_6$  which has the highest magnetic moment. This is oxygen desorption step involves the decoupling of the spins of  $\text{O}^-$  ions which will be facile on catalysts with high magnetic moment.

Department of Chemistry, VINOD RAM SASTRI,  
Indian Institute of Technology, R. PITCHAI,  
Madras, February 7, 1979. C. S. SWAMY.

1. Ramadass, N., Gopalakrishnan, J. and Sastri, M. V. C., *J. Inorg. Nucl. Chem.*, 1978, 40, 1453.
2. Vijayakumar, K. M. and Swamy, C. S., *Curr. Sci.*, 1976, 45, 403.
3. Cimino, A., Indovina, V., Pepe, F. and Stone, F. S., *Gazz. Chimica Italiana*, 1973, 103, 935.
4. Winter, E. R. S., *J. Catal.*, 1969, 15, 144.

#### VENTRAL FIN LENGTH AS A SEXUALLY DIMORPHIC CHARACTER IN THE MURREL, *CHANNA PUNCTATA* (BLOCH, 1793)

SEXUAL dimorphism has been reported in *Channa punctata* (Dehadrai *et al.*<sup>1</sup>). During the breeding season, males have pin-head black spots and females diffuse blotches on the ventral surface. In a series of 2,400 specimens examined over a period of two years, this does not appear to be a useful character distinguishing the two sexes. Instead, the ventral fins exhibit sexual dimorphism in the adults of *Channa punctata* from Guntur.

The present study shows that the ventrals originate at, slightly in front of, or slightly behind the dorsal, their posterior ends show considerable variation; in adult females they never reach the vent while in males they generally extend to the vent or a little beyond the vent. Thus the ventral fins are relatively longer in males than in females. When ventral fin length is expressed as percentage of the distance between base of ventrals and the vent, in specimens below 130 mm TL (120 mm TL is the minimum size at maturity in *C. punctata* from Guntur) there is no marked difference between the sexes, but specimens above 130 mm TL show a marked difference. In males the percentage ranges from 90.00 to 106.25 (mean = 97.91; number of specimens used = 75) and in females it ranges from 70.00 to 94.73 (mean 85.74; number of specimens used = 80). The lowest values in males and highest values in females are observed in the length range 130 to 150 mm. The difference between the sexes is more marked in specimens above 150 mm.

My grateful thanks to the C.S.I.R., New Delhi, for the award of a Research Fellowship.

Department of Environmental P. BALASUNDAR REDDY,  
Sciences,  
Andhra University,  
Visakhapatnam 530 003,  
A.P., India, February 22, 1979.

1. Dehadrai, P. V., Banerji, S. R., Thakur, N. K. and Das, N. K., *J. Inland Fish. Soc. India*, 1973 5, 71.

#### SCYTHIAN OSTRACODES FROM KHUNAMUH FORMATION, KHREUH, KASHMIR HIMALAYAS

THIS note records for the first time the occurrence of ostracodes from limestone samples collected from the Khunamuh Formation<sup>1</sup> of Scythian age at Khreuh (34° 01' : 75° 04'), 20 km southeast of Srinagar, Kashmir Himalayas.

Although the global occurrence of Triassic ostracodes is rare, they occur in considerable numbers in most of the samples studied by the author from Khreuh. The ostracodes were recovered from limestone samples treated by acetic acid for the recovery of conodonts. They have tentatively been identified, mostly on the basis of external characters, as *Bairdia*, *Monoceratina*, *Judahella*, *Hungarella*, *Cytherella* and *Paracypris*. The fauna appears to be well differentiated and taxonomically diversified. With the exception of *Judahella*, which is restricted to the Triassic rocks only, the other long ranging forms are significant only from the point of view of palaeoecology.

Nakazawa *et al.*<sup>1</sup> have referred a sequence comprising mainly of alternating limestones and shales, of latest Permian through Lower Triassic, at Guryul Ravine (34° 04' 43" : 74° 57' 30"), in Kashmir, to the Kunamuh Formation named after a nearby village. It conformably overlies the Zewan Formation of Upper Permian age with an abrupt lithological change. The Khunamuh Formation extends to Khreuh section.

Seventeen successive samples were taken for microfaunal study from the Khunamuh Formation, comprising 50 metres thick grey limestone and 35 metres thick alternating limestone and shale, at Khreuh. These beds have been assigned Scythian age by Chhabra<sup>2</sup> on the basis of dominance of conodont species *Neogondolella jubata* and *Neospathodus homeri*. It is significant to note that at the boundaries of the grey limestone and the alternating limestone and shale, as well as between the latter, marking the top of the Khunamuh Formation, and the overlying Nodular limestone, the samples show a marked decline in the ostracodes and a sudden increase in the frequency of microgastropods, micropelecypods and fish teeth, scales and spines, indicating thereby a change in palaeoecological conditions in the area.