

adapted for aerial respiration in the presence of moisture, but under adverse conditions can remain alive for short periods through aquatic respiration in which the organs of aerial respiration seem to subserve aquatic function as well. The spacious opercular chamber and the well-developed gill-lamellæ and pseudobranch appear to be the important factors concerned in this increased capacity for aerial respiration. The gradual dilution of sea-water in which the fish live has little effect on them, but in fresh water they show considerable distress and die in about two hours.

The breeding season of *Andamia*, judging from the occurrence of young ones in nature throughout the year and of eggs under laboratory conditions from September to March, seems to be fairly extended

and almost continuous. Some of the stages of embryonic development observed in the Laboratory have been described.

The most interesting point in the observations recorded is that, of the several species of Blennioid fishes which inhabit the intertidal region in the Andamans, two have reached a higher stage in the evolution of the air-breathing habit by leaving the relatively stable environment of the rock-pools and acclimatising themselves to the unstable but better aerated conditions of the spray and surf which bathe the rocks on which they live. Of these two species, *Andamia raoi* occupies a lower rung in the ladder of evolution as it is unable to live far away from the open sea while *Andamia heteroptera* has advanced further in its adaptation to a relatively more terrestrial habitat.

## OBITUARY

Dr. T. S. Narayana, M.Sc., Ph.D.

DR. T. S. NARAYANA comes of a family of reputed scholars.—His father is Mahamahopadhyaya Kalaprapurna Dr. Tata



Dr. T. S. Narayana

Subbaraya Sastri of Vizianagaram. Educated at the Maharajah's College, Vizianagaram, and the Hindu University, Benares, he worked for three years at the Indian Institute of Science, Bangalore, as a Madras Government Research Scholar under the direction of Prof. H. E. Watson. Thereafter he did research in the laboratories of the Andhra University and was serving as a Lecturer in Chemistry in the P. R. College, Cocanada, at the time of his death.

His published work relates to the Budde Effect in Halogens and is very widely appreciated—extensive references to it are to be found in recent books on Photochemistry like Plotnikov's "Allgemeine Photochemie". He was a very gifted experimenter, and a man of wide learning, not a narrow specialist. His death at the premature age of 32 has removed from our midst a physical chemist of great promise, a skilful experimenter, a popular teacher and above all a very genial friend.