The Arc Spectrum of Tellurium.

THE arc spectrum of Tellurium has been investigated from the visible down to λ 1600 using an ordinary arc between Acheson Graphite poles containing pure Tellurium as source in the visible and quartz regions. Between λ 2000 and λ 1600 an arc in Nitrogen in the manner used by K. R. Rao,[1] has been photographed by a Vacuum Grating Spectrograph. The data obtained have led to the confirmation of the level scheme of TeI proposed by McLennan[2] and others and also to the identification of the combinations involving the 5d and presumably the sp^5 levels of the spectrum. The important intervals 5d $^3D_1$ -- 5d $^3D_2$ and 5d $^3D_2$ — 5d $^3D_3$ are 196 and 789 cms^{-1} respectively. Adopting the value 72667[3] for the deepest term 5p $^3P_2$ of the spectrum a number of new low-lying energy levels 22624, 20800, 16997, 13923, etc., have been discovered. The detailed scheme will be published elsewhere.

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On the Feeding Habits of *Belostoma indica*.

THE mode of feeding of this giant water-bug was observed in the Laboratory to elucidate certain points regarding its feeding habits. The bug measured three inches in length and one inch across the thorax. As is well known it floats on the surface of water and if submerged produces the anal tube for respiration.

Tadpoles of various sizes were supplied. Small tadpoles could not be held between the grooved fore femur and tibia partly owing to the small size of the animals and partly that any slight touch would dart them away. Frogs about one inch long and half inch wide were easily caught and held fast between the forelegs and the bug pierced its stylets up to the base at any soft place usually between the arm and belly and sucked out the fluid till the animal was flabby.

Efforts to get away on the part of small frogs were of no avail as the grip was very tight even so much that it was difficult to take the animal away with the forceps.

Larger specimens of frogs were later on supplied and in no case was the bug found feeding as has been described by Herbert Manners [1] or as is shown in the drawing by R. C. Wood. On the other hand such large specimens of frogs moved away or jumped, much frightened, on the approach of the bug.

Artificial attempt to feed on larger frogs revealed further that the skin in these was tough and slippery for the stylets to pierce and the bug left such specimens for want of successful feeding. Pieces of dissected tissue of frog were also caught by the fore legs and feeding was resumed.

Attempts to feed this bug on other aquatic Hemiptera (*Nepidæ*) and water-beetles (*Dytiscidæ*) were unsuccessful probably due to their hard exoskeletons.

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A Cranial Abnormality in the Indian Mackerel—*Rastrelliger kanagurata*.

IN the normal cranium of this interesting fish, it will be noticed that there is an epiotic on either side of the supraoccipital and above the exoccipital. The epiotic has three outer surfaces—dorsal, lateral and posterior and is pointed postero-laterally. The dorsal surface of the bone sends antero-inwards a thick ridge which is continuous with a similar one from the supraoccipital and forms the upper edge of the posterior surface of the cranium. The lateral surface forms the inner wall of the temporal groove and the posterior surface contributes to the posterior wall of the cranium. The inner or the cranial surface of the bone has a small and a large recess. The two recesses are partly separated by a thin ridge, and are in continuation with each other at the base. The posterior semi-circular canal enters the wide recess and comes out of the bone through the smaller one.

In the specimen under consideration the left epiotic is absent and in consequence of

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[1] *Proc. Roy. Soc.*, **A. 124,** 465, 1929.

[2] *Phil. Mag.*, **4,** 486, 1927; also *Nature*, **124,** 874, 1929.

[3] Ruedy: *Phy. Rev.*, **41,** 588, 1932.

[1] Maxwell-Lefroy, H., *Indian Insect Life*, pp. 714-764.