

**International Commission on Zoological  
Nomenclature.**

THE undersigned has the honour to invite the attention of the zoological profession to the fact that Opinions 98 to 104 have been published by the Smithsonian Institution (*Smithsonian Miscellaneous Collections*, vol. 73, No. 5). The summaries read as follows:

Opinion 98.—Rigidly construed, Brauer and Bergengstamm (1889 to 1894) did not fix the types for the older generic names, except in the cases where they distinctly state that the species mentioned is the type of the genus.

Opinion 99.—*Entamoeba* 1895, with *blattæ* as type by subsequent (1912) designation, is absolute synonym of *Endamoeba* Leidy, 1879a, p. 300, type *blattæ*, and invalidates *Entamoeba* 1895, type by subsequent (1913) designation *hominis = coli*.

Opinion 100.—Under suspension of the rules the genotype of *Spirifer* Sowerby, 1816, is fixed as *Anomia striata* Martin, and the genotype of *Syringothyris* Winchell, 1863, is fixed as *Syringothyris typa* Winchell (= *Spirifer carteri* Hall).

Opinion 101.—The technical Latin designations used by Danilewsky, 1891, *Annales de l'Institut Pasteur*, vol. 5 (12), pp. 758-782, are not in harmony with the International Rules of Zoological Nomenclature, and are therefore not subject to citation or the law of priority on basis of said publication.

Opinion 102.—A generic name (example, *Proteocephalus*, 1858) is not invalidated by the earlier publication of the identical or a similar name of higher rank (example, *Proteocephala*, 1828). If *Tænia ambigua* (tod. of *Proteocephalus*, 1858) is congeneric with *ocellata* (tsd. of *Ichthyotænia*, 1894), *Ichthyotænia* is a subjective synonym of *Proteocephalus*.

Opinion 103.—The type of *Grus* Pallas, 1767, is *Ardea grus* Linn., 1758, by absolute tautonymy. *Grus* is hereby placed in the official list of generic names.

Opinion 104.—The following 57 generic names, with type species cited, are hereby placed in the official list of generic names:

Protozoa: *Bursaria*, *Eimeria*, *Laverania*, *Plasmodium*, *Sarcocystis*; Cestoda: *Ligula*; Nematoda: *Filaria*, *Heterodera*, *Rhabditis*, *Strongylus*, *Syngamus*; Oligochaeta: *Enchytræus*; Hirudinea: *Hæmadipsa*, *Limnatis*; Crustacea: *Armadillidium*, *Astacus*, *Cancer*, *Diaptomus*, *Gammarus*, *Homarus*, *Nephrops*, *Oniscus*, *Pandalus*, *Penæus*, *Porcellio*; Xiphosura: *Limulus*; Scorpionidea: *Scorpio*; Araneæ seu Araneida: *Avicularia*, *Dendryphantès*, *Dysdera*, *Latrodectus*, *Segestria*; Acarina: *Cheyletus*, *Chorioptes*, *Demodex*, *Dermanyssus*, *Glyciphagus*, *Polydesmus*, *Psoroptes*, *Rhizoglyphus*, *Trombidium*; Thysanura: *Lepisma*; Collembola: *Podura*; Orthoptera: *Blatta*, *Ectobius*, *Gryllus*, *Periplaneta*; Anoplura: *Pediculus*, *Phthirus*; Hemiptera: *Anthocoris*, *Nabis*, *Notonecta*, *Reduvius*, *Triatoma*; Dermaptera: *Forficula*; Suctoria s. Siphonaptera s. Aphaniptera: *Pulex*; Mammalia: *Cercopithecus*.

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Zoological Nomenclature).

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**A Psychological Analysis of Radicalism.**

HAVING recently travelled round the world, and come in contact with various types of radicalism, especially in Russia and India, I have thought it possible that some form of analysis might facilitate clearer thinking. It is possible to recognise three types:

- (1) Emotional radicalism.
- (2) Mechanical radicalism.
- (3) Rational radicalism.

By radicalism we mean the attitude of seeking or promoting radical or fundamental reforms. In the first type we witness a desire for reform, without any sufficiently considered programme. Formerly we had a party in the United States called the Populist Party. It had considerable success at first, as a party of justifiable indignation or protest, but having no well-reasoned plans it became extinct. Some one wittily defined a populist as "a man who doesn't know what he wants, but wants it damned bad." The second type is built on a theory or dogma, and is well illustrated by Marxian or Leninian socialism. In Russia, furious debates arise over the question, What would Marx, or what would Lenin, have said or done in existing circumstances? The third type, to which many scientific men belong, is pragmatic, and depends upon the close and constant study of all the factors involved.

The first and third types involve more thought than the second; but in the first the attitude is primarily subjective, in the third more objective. Rational radicalism, while abundantly distinct from the other two, partakes in some measure of their qualities. Thus it necessarily has to be based on fixed principles, the laws of Nature; and it gets its driving force from those emotions which come from a sense of human values, regardless of mechanistic or cosmic considerations. Emotional radicalism is the easiest, and may even be said to be displayed by children when they resent discipline. Rational radicalism is the hardest, and at different times may be the most conservative or cautious, or the most progressive and venturesome. Its programme varies with circumstances, and with the completeness of our knowledge and accuracy of our judgments.

T. D. A. COCKERELL.

University of Colorado,  
Boulder, Colorado, Oct. 30.

**Long Wave Radio Reception and Atmospheric  
Ozone.**

I AGREE with Dr. Dobson (*NATURE*, Nov. 10, p. 725) that the relation that has been found between Bangalore observations on Madras and the ozone values for north-western Europe requires extended observations for confirmation. Far from being an assertion of an established relation, my letter was intended to direct attention to the probable connexion as shown by the correlation figure of  $0.88 \pm 0.023$ .

Dr. Dobson is no doubt aware of the periodic variations in radio field intensity as well; this has been shown by Austin, Mesny, and other observers. The Bangalore observations on Madras, too, indicate the same. In addition to the seasonal variations noted by every observer, we have also an annual increase in intensity, specially marked in the observations on Bordeaux, at Meudon, and at Washington, with fairly definite similar variations in sunspots (Wolfer's figures).

In the present case, considering the great distance and the period of comparison—six months—the relation found was so unexpected that a common cause for the variations suggested itself; if true, it would mean that the variations in ozone values would not partake of a strictly local character.

In view, however, of Dr. Dobson's statement that in lower latitudes the annual variations of ozone are comparatively small, it would be interesting to know if there is any similarity in the variations at low latitudes, such as they exist. The actual ozone value