

The older authors have all of them referred to this well-known species either as the fish tapeworm or broad tapeworm of man and it is so recorded in all American literature until relatively recent times. Corresponding terms are also utilized by various authors in European languages, and it is unfortunate that any one should regard it necessary to make a change from these two early descriptive names which have been so widely introduced and under which this species is generally so well known. For many reasons, geographic names are not advisable designations for species and the one utilized here is distinctly open to criticism on all the grounds that may generally be urged against such designations as a whole.

The designation is in the first place incorrect since the species in question is well known to have almost a cosmopolitan distribution. It is to be sure limited by certain dietetic relations, *viz.*, the consumption of fish, which varies widely but is definitely connected with the proximity of water bodies yielding a fish food supply that is utilized by a considerable percentage of the adjacent population. Ordinarily the species is listed as common around the Baltic and North Seas and around certain inland water bodies. Many cases on record come from Scandinavia, Switzerland, France, Japan and from the German Baltic provinces as well as from other Baltic provinces which for the most part are now independent and not included in Russia. Consequently such a designation for this species as Russian is scientifically misleading.

One might also rightly object to geographic terms since the species in question has no relation whatever to the nationality involved in the name. Earlier views regarding racial immunity or susceptibility to helminthologic infection have been shown to be largely if not entirely incorrect. Proper consideration for international relations as well as for the scientific factors involved would hence naturally lead to the elimination of such a term and to the utilization of one free from the unfortunate connotation.

Of all the cases of the broad tapeworm on record in this country the large majority are reported from Scandinavians, Germans, Finns and the parasite is in no wise definitely related to the Russians. It is to be hoped that a designation thus definitely misleading may be avoided by writers in future.

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ULTRA-VIOLET LIGHT AND THE ANTI-NEURITIC VITAMIN

IN recent numbers of SCIENCE and elsewhere observations have been recorded indicating an intimate connection between the antirachitic property of foodstuffs and ultra-violet radiation. Especially in view of the finding that foodstuffs may be rendered anti-

rachitic by ultra-violet radiation, it may be of interest to record the result of an experiment performed a year ago in connection with the effect of ultra-violet light on the antineuritic food factor. In this case it was found that the antineuritic factor was destroyed completely by radiation for a few hours of an aqueous yeast extract which was exposed to the rays of a quartz mercury arc lamp in a layer 2-3 mm deep. Both the irradiated and non-irradiated extract were tested by feeding to pigeons otherwise maintained on a white rice diet.

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STIMULATION OF SPORE GERMINATION BY CO₂

DURING a study of *Basisporium* dry rot of corn, it was found difficult to germinate the spores of the causal organism, *Basisporium gallarum*, in the usual water drop cultures. The spores of the fungus germinated poorly or not at all when placed in drops of water and held at optimum temperature. In the presence of plant tissue, however, where such tissue is not in contact with the culture drop, profuse germination takes place. Brown¹ described this phenomena in connection with his studies on spore germination but offered no definite explanation of it.

In the case of *B. gallarum* the stimulating effect is produced not only by aromatic fruits and flowers but by leaves and green stems or any fresh cut plant tissue. The general effect of plant tissues suggested carbon dioxide as a possible agent in the stimulation of spore germination. This assumption was strengthened by failure of the spores to germinate in the same chamber with plant tissues if barium hydroxide solution in sufficient amounts was also present. Moreover, while air passed over cut plant tissue, introduced into the same chamber with the spores, strongly stimulates germination, if passed through barium hydroxide before entering the spore germination chamber, no germination results. In all cases where barium hydroxide was used with plant tissue, a heavy precipitate of the carbonate was produced.

The agency of CO₂ in the stimulation of germination of the spores of *Basisporium gallarum* was further demonstrated by the use of washed CO₂ from a generator. The gas in small amounts, from 1 to 5 per cent., stimulated the spores in water drop cultures to profuse germination, while control cultures failed to germinate.

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¹ Brown, William. "Studies in the physiology of parasites," IX, 1922, *Ann. Bot.*, 36, 285-300.