recent reports on the distribution of the broad tapeworm, Diphyllobothrium latum, in Canada might be based on incorrect determinations. His studies led him to believe that the Diphyllobothrium commonly found in dogs but very rarely in man in Manitoba was in reality D. cordatum.

The demonstration program of the American Society of Parasitologists in the afternoon attracted much favorable attention. On the whole the program of the day drew an unexpectedly large group and demonstrated that there is a wide-spread interest in problems in animal parasitology.

SECTION ON BOTANICAL SCIENCES (G) AND ASSOCIATED SOCIETIES

(Reports from W. S. Cooper, A. E. Murneek and Howard P. Barss)

The Section on Botanical Sciences (G) and the Botanical Society of America did not have independent programs but met jointly with associated societies. The records of the meetings are contained in the reports of the associated societies, as presented by their officers.

The Ecological Society of America held a successful meeting in Minneapolis from June 24 to 28. Registration took place at the Botany Building, on Monday, June 28. In the forenoon of Tuesday, a joint session with the Botanical Society of America was held in the auditorium of the Botany Building, with an attendance of 112. Dr. K. M. Wiegand, vice-president of the Botanical Society of America, presided. Four papers were presented, all dealing with the biological features of the region surrounding the place of meeting.

Dr. Norman C. Fassett, of the University of Wisconsin, described "The Vegetation of the Driftless Area" with special reference to the postglacial history of the region. The other three papers were introductory to the field trips that had been arranged for the following days. Dr. W. S. Cooper, of the University of Minnesota, presented "The Origin and Vegetation of the Anoka Sand Plain," an extensive area of outwash and ancient dunes just north of the Twin Cities. Dr. F. K. Butters, of the University of Minnesota, described the "Vegetation of Northeastern Minnesota," the part of the state dominated by conifers—where certain areas appear not to have been covered by the Wisconsin glaciation. Dr. Samuel Eddy, of the University of Minnesota, described the "Animal Communities of Central Minnesota," giving special attention to the aquatic communities.

A resolution, presented by Dr. W. S. Cooper, endorsing the program of the Quetico-Superior Council in its efforts toward the establishment of an international wilderness area covering the lands bordering

the boundary between Minnesota and Ontario, was approved by the two societies jointly and transmitted to the council.

On Tuesday afternoon the botanists and plant ecologists joined in a field trip to the bottoms of the Minnesota River. The animal ecologists visited Lake Elmo for the study of aquatic communities. About 40 attended the two excursions. On Wednesday the two societies joined in an all-day excursion to the Anoka Sand Plain, visiting acid plat meadows, tamarack and cedar bogs, and Pleistocene sand dunes. About 65 were in attendance upon this field trip.

On Wednesday evening members of the Ecological Society, the Botanical Society, sections on Zoology and Botany and guests, numbering 78 in all, joined in an informal dinner.

Thursday and Friday were occupied by a longer trip to the region around Duluth. Included in the itinerary were the Dalles of the St. Croix River at Taylor's Falls, Manitou Falls, Wisconsin, the State Forest Experiment Station at Cloquet, Minnesota, where the party enjoyed the hospitality of the station staff, Jay Cooke Park, near Carlton, Minnesota, and the north shore of Lake Superior as far as Two Harbors; 35 took part in this excursion. A smaller number, under the leadership of Dr. F. K. Butters, went further along the shore and visited the border lakes, extending the trip by two or three days.

The American Phytopathological Society held its first summer meeting in several years with at least fifty-five members and many visitors present. The local committee, under the chairmanship of E. C. Stakman, arranged a most interesting and successful three-day program.

Tuesday morning was devoted to the joint symposium with the Section on Agriculture (O) and affiliated societies on "Improving the Germ Plasm of Domestic Plants and Animals," led by H. K. Hayes, in which recent scientific developments in the application of the principles of genetics to plant and animal breeding were outlined by W. C. Coffey, J. L. Lush and O. S. Aamodt. The afternoon was devoted to a symposium on "The Past, Present and Future of Plant Pathology," in which H. L. Bolley entertainingly presented highlights from nearly fifty years of experience in this field of science, and E. M. Freeman effectively urged the necessity of coordination of plant pathological research with related sciences, emphasizing the importance of team work in attacking complex problems and insisting on the necessity of maintaining the autonomous guild or scientific group organization in state and federal institutions for the most effective public service in research and regulatory work. The lively discussions which followed were continued at the evening round-table meeting and resulted in the establishment of two committees, one to work toward the development of more comprehensive coordinated national program of potato improvement, the other to work toward coordinated testing of seed treatment methods.

The second day was devoted to inspection of the extensive field laboratory and greenhouse investigations at the Minnesota Experiment Station, followed by a banquet at which a loving cup was presented to the pioneer plant pathologist, Dr. H. L. Bolley.

The last day was devoted to a series of excursions in the region about the Twin Cities, including vegetable, fruit and ornamental plant producing areas, experimental plots and the Fruit Breeding Farm, where plant disease conditions were observed and discussed. One of the most appreciated features of the program was the abundant opportunity afforded for personal and informal conferences among the members on problems of mutual interest.

The summer meeting of the American Society of Plant Physiologists was held at the University of Minnesota Farm on June 25 to 27 under the presidency of Dr. Burton E. Livingston.

The first day was spent largely in the inspection of laboratories and demonstration of research work in progress in the physiological laboratory of the Department of Botany (Minneapolis campus) and the Section of Plant Physiology (University Farm), as well as in laboratories of the Shelter Belt project of the Lake States Forest Experiment Station at the University Farm. On the evening of June 25 a picnic supper was arranged by Dr. and Mrs. R. B. Harvey which was enjoyed by a large group of members of the society.

The first regular session for the reading of scientific papers was devoted to a symposium on "Dormancy, After Ripening and Germination of Seeds"; also the various physiological problems associated with dormancy and the ripening of seeds were reviewed and the results of recent studies in this field presented in a number of papers.

The afternoon program of June 26 consisted of the presentation of papers on a variety of subjects with particular emphasis on plant nutrition, nitrogen, metabolism and various effects of light on plants.

On Thursday, June 27, there was a joint trip with plant pathologists and horticulturists to the Coon Creek peat experimental fields and the market garden area at Brooklyn center. The field trip was continued to the Minnesota Fruit Breeding Farm at Zumbrota Heights.

SECTION ON ANTHROPOLOGY (H) (Report from W. M. Krogman)

The section held its meetings from Thursday to Saturday, June 27 to 29. The Thursday morning session

centered about the prehistory and archeology of the Upper Mississippi area. A. E. Jenks presented a summary of his conclusions concerning the age and type of "Minnesota Pleistocene Homo," which was stated to be approximately 20,000 years old and probably primitively pre-Eskimoid. The geological evidence of age was briefly considered and morphological features generally stated. Dr. Jenks also reported on evidences of cultural antiquity in Minnesota as represented by fossil mammoth ivory found in deep subsurface burials beneath sterile mounds. L. A. Wilford discussed aboriginal Minnesota pottery, recognizing cultural affinities between southern Minnesota and Iowa and Wisconsin and between central and northern Minnesota and "Lake Michigan ware." J. B. Griffin extended this theme in a general analysis of pottery types of the north-central United States. On the basis of archeological evidence, A. W. Bowers summarized the time sequence of Missouri River cultures in the Dakotas covering the period of 1200 to 1850 A. D.

At the Friday morning session, F. L. Goodenough discussed the measurement of mental function in primitive groups upon the basis of the measurement of specific performance and the measurement of general mental traits. M. F. Ashley-Montagu, in an analysis of the problem of differential fertility in primitive societies, pointed out the hiatus of four years between the onset of the menarche and the ability to conceive as the basic factor in the disparity in the fertility of married and unmarried females. Frances Densmore outlined regional peculiarities of Indian songs in terms of eight variants in the complex of melody and rhythm. Specific Indian groups were cited as examples. W. M. Krogman reported on skeletal material from Anatolia, Asia Minor, dating from 4000 B. C. to 1500 A. D. A basic long-headed Mediterranean type was recognized, intruded upon in 2500 B. C. by a round-headed Alpine type.

The Saturday morning session was devoted to problems of human growth. W. D. Wallis discussed anatomic lag in terms of the tendency of a given dimension to be retarded with reference to another with which it is positively correlated. Numerous examples illustrated the thesis. C. H. McCloy explained the analysis of growth components at different age levels by the method of factor analysis. Three components were demonstrated—linear, cross-section and measurements of cutaneous and subcutaneous soft parts. Dr. Edith Boyd, in a discussion of early human growth and development, outlined the pattern of length-age ratios in the prenatal period and infancy. Dr. T. H. Evans offered a demonstration of the comparative growth stages in the mandible.

The members of the section were the guests of the Department of Anthropology and availed themselves



SECTION ON BOTANICAL SCIENCES (G) AND ASSOCIATED SOCIETIES

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