Mrs. Imogene C. Robertson's
Rambling Notes on the Second Annual Meeting of the
American Malacological Union in Washington, D. C.
May 26-28, 1932.

Thursday, May 26, 2:00 p.m.

Dr. J. E. Graf, Associate Director of the United States National Museum welcomed the members. He spoke of the interesting field in which we are engaged and its direct scientific value - both in pathology and geology.

Dr. Pilsbry responded, saying that this was the first anniversary - the first meeting having been held in the city of Philadelphia where mollusks were first studied in this country - and it was fitting that the first anniversary should be held in the city which contains the greatest collection.

The presidential address followed, Dr. Pilsbry's subject being "The Distribution of the Family Pupillidae."

Some groups of small shells, he said, are quite as important as larger ones in their bearing on the problems of distribution. There are over 40 genera and several hundred species of the Pupillidae some of the more important being Gastrocopta, Albinula, Vertigopsis and Sinalbinula. The center of distribution of these is Asia. Gastrocopta probably could be found anywhere in Africa.

In the northern U.S. Pupilla is found - having probably come in during the interglacial period. The family is more diversified in Asia, showing longer residence. Pupoides is a western American genus. Microstele is found in the Miocene of Europe and still exists in India and Africa.

Vertigo is distributed all over the Northern continent, but in North America it does not occur south of Vera Cruz. It is universally distributed over Europe but is not found in Africa south of Algeria.

Nesopupa - an Oligocene form in Europe - is now found all over Polynesia and Africa.

Sterkia occurs in lower California and the adjacent Islands. No other family has so wide a distribution as Pupillidae.

M. K. Brady --

"A Word on the Liguus Situation in Southern Florida." There are three species of Liguus, based on color of columella and tip.

Liguus is being exterminated rapidly because of certain conditions. There are at least 60 collectors who are making a business of gathering this particular tree snail. The Everglades are being thoroughly drained, thus destroying some of the naturally favorable conditions, and much of the area has been burned over. On the lower Keys drouth conditions have been extremely severe.

There are three types of collectors in Florida. First, scientific men like Deckert and Frampton; second, mere collectors; third, the menacing type - collecting for commercial purposes.

Dr. Clench -- commenting

Certain hammock areas contain none, because fires have killed them off - 40 or 50 years ago. Drouth is not a sufficient explanation, Liguus having been kept under bell jars without moisture for 18 months at the end of which they were still living.

Dr. Bartsch asked about reproduction.

Dr. Pilsbry responded that the eggs are laid on the ground.

Certain species and sub-species are perfectly definite, though there are many hybrids and mixed colonies. The Northern Keys never have chocolate in their coloration. Crenatus was evidently first to come to Florida and spread.

Joshua L. Baily, Jr. --

Why not initiate legislation to protect Liguus and introduce species into protected areas?

Dr. Bartsch had called attention to this in a letter to the National Parks Commission.

Mr. Albright, John C. Merriam and Senator Wolcott had all stressed the desirability of making this Everglades region a National Park.

Dr. Bartsch suggests that we call attention to vandalism and commercialism and urge the legislature and congress to encourage the setting aside of this area as The Everglade National Park. It may come up in the next session and will meet with little opposition (National Parks Service and Congressman Owen).

Berlin Hart Wright --

"Clamming in Florida and Elsewhere." Mr. Wright is over 80. His first efforts in nature study were encouraged by his father. His introduction to clams occurred when he found in the mud of the bottom of a pond a large clam - an Anodonta - the largest ever found. He found here some half-grown specimens and some larger ones - 3 inches long - quite elastic. He found shells in a rivulet 6 inches deep, and 20 miles from any large body of water, in the feeding grounds of migratory birds - these mollusks being packed solid in the stream - Anodonta subcylindracea, remarkably uniform in size and marking. The following spring practically all were gone, the muskrats having eaten them.

Dr. H. Burrington Baker --

"Idaho Transition Zone Mollusks." There are several climatic zones in Idaho - determined by the winds. There are a larger number of species in the dry area. On the western slopes there are more forests than on the eastern, due to the dry winds of the east.

Polygyra will eventually be found in the Sierra Nevadas.

Haplotrema vancouverensis, Polygyra townsendiana, Oreohelix and Helicodiscus. There are great local contrasts in climate, much precipitation in the form of snow in winter with dry winds in summer. Canyons are carved in the abundant lava fields. Dr. Baker thinks there are three forms of P. townsendiana - not geographic subspecies but ecological variations.

Marshall & Bowles --

Edgar Oliver Bowles -

"New Forms of Freshwater Fossil Mussels from Ecuador the most Western reach of the Atlantic drainage." In discussing this paper Mr. Marshall said - Freshwater shells may sometimes live in brackish water as in the La Plata Estuary. Probably in former times a great estuary may have existed in this region in Ecuador where the mussels under consideration occur. It is very difficult to establish the age of freshwater fossil mollusks.

Corbula lives sometimes in fresh water in isolated pockets.

Prof. Henderson -- commenting

Genera as far back as lower Cretaceous freshwater forms are identical in appearance with recent. It is important to know how specimens were collected - whether they have weathered out giving a mixture of faunas - when not in position. Unios and Campelomas may be in one stratum and other faunas in another.

A business session followed the reading of papers, to act upon recommendations of the Council which had met in the morning.

Dr. Bartsch moved the creation of an honorary membership for such as have contributed in an outstanding way to American Conchology. Seconded by Prof. Henderson. Carried.

Dr. Bartsch moved that these men be elected to honorary membership; Charles Torrey Simpson, Dr. Bryant Walker, Dr. Victor Sterki. Seconded by Dr. Clench. Carried.

Dr. Bartsch moved the creation of a corresponding membership for those not residing in the Americas. Seconded by Prof. Henderson. Carried.

Election of officers was next in order. Dr. Pilsbry nominated Dr. Bartsch for president. Seconded by Henderson. Unanimous vote. Dr. Clench nominated Prof. Henderson for Vice president. Seconded by Mr. Robertson. Affirmative vote unanimous. The Chair asked that one vote be cast by the Secretary for Financial secretary for the present incumbent. Carried. Mrs. Robertson nominated Dr. Pilsbry for the vacancy in the Council. Seconded by Dr. Bartsch. Carried.

A list of new members was elected unanimously.

Prof. Henderson presented an invitation from Stanford University to hold the meeting of 1933 with them. Dr. Clench presented an invitation from Dr. Barbour of Harvard to have the meeting in Boston. Mr. Marshall spoke for Buffalo.

Dr. Bartsch suggested that in view of the present depression, the invitation from Stanford be acknowledged with appreciation and regret that it seems best to defer the meeting in California to another year, and that we accept Boston's invitation for the next meeting. Seconded by Mr. Robertson. Carried.

Prof. Henderson called attention to the fact that 20 percent of the membership is west of the Rocky Mountains and that there should therefore be one meeting out of five in that part of the country. Dr. Baily said that there is a live society in San Diego.

Thursday evening

Dr. Paul S. Galtsoff of the U. S. Bureau of Fisheries spoke on "The Ins and Outs of the Oyster."

Some of the figures given as to number of oysters cultivated on the east coast were enlightening - 11.97 million bushels are marketed, 18 billion oysters from Cape Cod south - over the 3300 miles of coast line, in a band 5 miles wide or 16½ thousand square miles - 1/6400 of the total area of the ocean - 1400 million tons. He said that Connecticut oysters are rich in copper and poor in iron. There are 220 tons of iron in the 12 million bushels of oysters marketed. A female oyster discharges 100 million eggs at once, producing between 200 and 300 million eggs - a much greater number than was formerly believed.

The young oyster swims about in the water for 13 to 16 days before settling. Copper is necessary to induce attachment.

Lantern slides were used to illustrate this lecture, showing many interesting features.

Friday morning, May 27

Joshua L. Baily, Jr. --

"The Founders of California Conchology." The first white man to pick up a shell on the west coast and make a record of it was Capt. Cook who took a collection of shells to England to Thos. Martin who described them.

The first scientific collector was Escholtz, 1815. Others were Nuttall, Conrad, Trask, Jewett, Gabb, Reeve, Sowerby, Carpenter. Carpenter referred many west coast shells to European forms which really do not occur on the coast. Stearns and Dall were other noted workers and Josiah Keep did much to popularize the study by his "West Coast Shells." Mr. Baily has revised this work and it is now ready to print.

Dr. William J. Clench --

"The Distribution of Certain Solomon Island Land Shells." The shells used in this study were collected by Eyerdam but the primary purpose of the expedition by Dr. Miner was the collecting of birds. Shells were therefore a secondary consideration. The present paper was in the nature of a preliminary report only half of the collection being gone over.

The Solomon Islands are 1000 miles from New Guinea and comprise 7 large islands and 50 or 60 smaller ones with thousands which are not more than rocks surrounded by water. In 1566 Mendana called these the Solomon Islands because of their richness. After this they remained unknown for 200 years. They were rediscovered in 1767. Guppy collected shells in 1865. Two hundred shells are now known but specific collecting would result in doubling this number. All these islands with New Guinea and New Zealand were probably joined at one time.

Placostylus is the most prominent genus. Streptaxis can scarcely be found in the islands. Trochomorpha, Chlorites and Papuina are characteristic.

Cuming made many errors in locality. Forms in the higher regions can only be accounted for by former land connections. An elevation of 500 to 800 feet would join them.

Dr. Bartsch said the glacial period lowered the oceans 300 to 500 feet which would uncover connecting areas. Hurricanes also play a large part in distribution.

Dr. Bartsch thought Cuming had been too much slammed. Broderip said Cuming kept accurate data on his material. Dr. Pilsbry explained that Cuming probably profited by his early experiences and

on his Philippine collecting made good records. Prof. Henderson observed that until distribution records are correlated no final conclusions can be drawn.

Reference to the Wegener theory of continental drift was made as not being tenable. Dr. Henry S. Ladd said the geological evidence shows that Melanesia was connected until Tertiary time.

Dr. Bartsch and Edgar Oliver Bowles --

Read by Mr. Bowles

"The Cerions of Cay Sal Atol."

Studies on the varieties of Cerion caysalensis, niteloides, damascensis, anguilensis and xylina. Charted by rib counts and other differences. Dr. Bartsch said he used to think that a difference in size may represent seasonal variation. He now knows that 3 years are required for Cerions to mature.

Dr. Bartsch and Jose Gallardo --

Read by Mr. Gallardo

"The Cerions of Porto Rico." In Porto Rico Cerions are found only on the south coast. All these seem to be in one group C. crassilabris. The variations were charted by rib counts.

Dr. Bartsch hopes that Bowles and Gallardo have set a pace which others will follow.

Dr. Pilsbry remarked that Cerion distribution is restricted - being in a narrow strip as compared with other species which range over thousands of square miles.

Friday afternoon

Dr. Paul Bartsch and Mrs. Mary Bowman --

"A New Subgenus and Species of Cerion, Cyclocerion baconi Bartsch and Bowman. This was the opening paper of the afternoon session.

F. Stearns MacNeil --

"Pathologic and Abnormal Fossil Shells." Several such were shown and discussed.

Mr. Marshall showed shells which exhibited repairs.

Prof. Henderson said there are two distinct kinds of breakages and that each should be designated by a specific term - pathologic for diseased conditions and traumatology for simple breakage.

Mr. Chitwood --

"Snails as Hosts and Carriers of Nematodes." Snails have heretofore been considered as carriers of trematodes chiefly. The present studies on nematode infestation have been carried on by Mr. Chitwood and his wife. There are 6 types: free living plant parasites, obligatory adults, obligatory larvae, salivary, one stage, larval stage. Philomycus was found to be infested with plant parasites in resistant stage in intestine. Mr. Chitwood concludes that snails and slugs may be definitely considered in the spread of plant parasites. Some are distinctly carriers of parasites of vertebrates. Snails are often the intermediate host of nematodes. Leidy described nematodes from A. alternata.

Dr. Horace G. Richards --

"Ecological Study of Mollusks of Delaware Bay Region." Dr. Richards showed lantern slides of maps and marine species collected in the region with reference to local conditions. Many were from Cape May.

Mr. Marshall suggested the preparation of a handbook of the mollusks of New Jersey and another for Florida. He recommended Cape May as a good collecting ground.

Dr. Clarence Cottam --

"The Food of Marine Diving Ducks." Figures were given which

demonstrated the value of mollusks in the economy of these ducks. Two thousand scaups consume over 7,000 oysters every day. Mulinea lateralis forms a large part of the food of many birds as well as Planorbis, Lymnaea, and Physa.

Inland ducks do not consume as many mollusks as marine species. They form less than one per cent of the food of the wood duck for instance, while they constitute 91% of the food of the white-winged scoter. The birds are not at all discriminating, feasting on the species which happens to be most abundant. Most ducks consume shell and all, seeming to have no difficulty in grinding up the hard parts. On the west coast chitons form a considerable part of the diet.

Dr. Pilsbry was surprised that birds could pry the chitons from the rocks.

Dr. Bartsch asked how the golden eye gets bodies of unios from the shells. He had shot ducks which were found to have the stomachs full of the bodies of sand clams - without the shell.

Mr. Marshall --

"Drilling of Predaceous Gastropods." Mr. Marshall showed specimens of shell pierced with the drillings of other mollusks, and wondered whether one or more had made a meal from the luckless victim.

He quoted from several of the poets who had taken lessons from shells and concluded that even without systematic work one may gain pleasure from observing nature's ways.

This concluded the scientific papers of the meeting.

Mr. Robertson made a plea for the formation of local chapters of the Union to report annually, thus extending the scope of the organization and encouraging the systematic collecting of local material.

The evening was pleasantly spent at the Congressional Library which is a sight to be remembered with the soft lighting and vistas of beauty through marble column; and thought provoking murals on every hand.

Saturday, May 28

On Saturday morning members assembled at the Museum for the proposed trip to Plum Point. Five autos carried the party of 22 through beautiful country to this classic of American fossil deposits in the Calvert formations. Here Tertiary shells mingle with recent forms on the beach and sharks' teeth are by no means scarce.

After a full day of collecting, a tired but happy party sat down to the annual dinner, after which Dr. Cloyd H. Marvin, President of George Washington University, presented a color film made undersea in the Tortugas, Florida, at a depth of from 10 to 30 feet. These were some of the first of the kind to be made and demonstrated the value and practicability of color photography in this type of work. A vote of thanks was extended to Dr. Marvin and farewells were said.

Robertson Mrs. Imogene C.

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