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Fairbanks, Alaska

1980s

Steve Lay

University Focus series

Jackie LaPerriere talked about an expedition to St. Lawrence Island with Dr. Nakow who is from the Geophysics Department at the University of Hokkaido at Sapporo. She is the local scientist for the project. They will be taking cores of the ancient lake sediments so they can look at the climate of the ancient world. Dr. Nakow is looking for what the climate was like under the arctic air mass during particular times since and before the last glaciation. He is an expert on ancient lake hydrology. He does what is called granulometric analysis. He can look at the size of the grains in the core and he can tell about precipitation and how much flow was coming through the lake at the time. Other scientists attached to his team are studying other geophysical measurement such as Ferro magnetic orientation and carbon dating of the core. On the St. Lawrence expedition they also had a pollen scientist with them, Dr. Maida. He was the only biologist on the expedition along with Dr. LaPerriere. The scientists have hypothesis about climatic change, what caused it to occur and what accompanied those changes over time. They are looking for evidences of these changes and testing their hypothesis. They are looking at lakes that hopefully have not had disruption to the sediment layers. Dr. Nakow started looking at lake deposits in Japan. Dr. Horia along with others like Dr. Nakow took a 200 meter continuous core in the 1970s. They are still analyzing the core and found that it is over a quarter of a million years old. They have not found lakes that are that ancient in Alaska yet. Dr. Nakow is associated with the Cold Temperature Institute in Japan. He worked on Harding Lake in 1979. He has also looked at lakes near Barrow. He has proposed to do coring in Africa and China. He is successful getting grants in Japan.

Dr. LaPerriere talked about the team's activities on St. Lawrence Island. Dr. Nakow and an associate did some water chemistry studies and looked over the island last year. This year he cored several lakes and took detailed hydrologic measurements. Dr. LaPerriere discussed how coring was done at Harding Lake. At St. Lawrence Island they used a different method. They used the Livingston hand coring method. They drove the rods by hand. Dr. LaPerriere said many scientists have worked on the theory that St. Lawrence Island was part of the Bering Land Bridge during ancient times when there was a land connection between Siberia and Alaska. Dr. Maida was trying to determine if there were trees on St. Lawrence Island at one time.

Dr. LaPerriere said Dr. Nakow is able to put together a research team that works well together in the field. She talked about data collection at Harding Lake. There were many talented people on the team. There were also grad students involved in the work. She was the only UAF person on the team. She

coordinated work with the team and local contractors. She said she was asked to join the team because she was working on a limnological problem and she has experience communicating with Japanese people.