



Shediac, New Brunswick is considered the lobster capital of the world.

James Donald, a Scottish settler who received a grant of land the year New Brunswick was created. On July 14, about 150 of his descendants from across North America will gather in Upper Blackville on the Miramichi River, about 120 kilometres northeast of Fredericton.

There will be a service at James Donald's graveside, discovered and cleared last year, and the group will install a small marker.

On a larger scale, 40 000 people are expected to attend Expo East, a trade fair, craft show and celebration to be held in Moncton at the end of June. The event is part of Railroad Days, the city's celebration of its railroading past and of its present boast of being the transportation hub of the Maritimes.

Two important visits will dominate New Brunswick's bicentennial celebrations. Queen Elizabeth II will visit the province from July 14 to 16 and Pope John Paul II will be in Moncton on September 13, an event which organizers expect will bring more than 300 000 people from all parts of the Maritimes, Quebec and the New England states.



The blessing of the fleet is an important part of the Acadian Festival.

Heat from salt ponds

Salt solar ponds have the potential to generate heat for industrial processes and produce domestic hot water in Canada much more cheaply than conventional solar panels, according to a study of the technology. Daniel Crevier, an electrical engineering professor at McGill University in Montreal, has spent the past three years studying the feasibility of salt ponds as solar energy collectors. His "salt gradient solar pond" consists of a shallow artificial pool with fresh water at the surface and water with progressively higher concentrations of salt toward the bottom. The pond acts as a heat trap.

"The deeper water is heated by the solar radiation reaching it," Mr. Crevier said. "But since it contains more salt and is therefore more dense than the water lying immediately above it, it does not rise to the surface and lose its heat to the atmosphere, as would happen in a normal body of water.

"The temperature of the entire pond thus increases, the warmest layer being at the bottom. Temperatures higher than 100 degrees Celsius have been reached in this fashion."

Salt ponds have one major advantage over other kinds of solar energy collectors: temperature changes take days or weeks, depending on the depth of the pond and the

amount of heat extracted. That means heat can be extracted at a constant rate, unaffected by the absence of sunshine or by sudden weather variations.

In 1981, Mr. Crevier's research company, Coreco Inc., received support from the National Research Council to build a 700-square-metre pond, two metres deep, in Varennes, south of Montreal. Heat generated by the pond is supplied to a nearby grain-drying installation.

Space heating

Deeper salt solar ponds could be used for space heating during Canadian winters, Mr. Crevier said. Summer heat would be stored in the salt water even when the surface of the pond was covered with ice.

Coreco has developed an automatic pond control and monitoring system — which includes a microcomputer, temperature and salinity probes, communications equipment and other instruments — to reduce the "inordinate amount of human effort" that would otherwise be needed to make the pond work.

Mr. Crevier estimates the cost of a large salt solar pond to generate heat for industry would be less than one quarter of the cost of a similar installation using conventional solar panels.

The National Research Council has given Coreco a \$35 000 follow-up contract to

study four designs of salt solar ponds and determine which would be best for the Canadian climate. A model of the best design will probably be built at McGill University or at an NRC site in Ottawa.

Canada at Expo 85

John M. Powles has been appointed Commissioner General for the Canadian participation at Expo 85, the 1985 International Exposition to be held in Tsukuba, Japan.

Associated with world exhibitions since 1969 when he worked for the Canadian Pavilion at Expo 70 in Osaka, Mr. Powles was appointed in 1978 Director of External Affairs' International Expositions Division and Canadian delegate to the International Bureau of Expositions in Paris. He will continue in his present position while carrying out the duties of Commissioner General for Canada at Expo 85.

Expo 85 is a special category international exposition on the theme "Dwellings and Surroundings — Science and Technology for Man at Home". The exposition will run from March 17 to September 16, 1985, and is expected to attract 20 million visitors. Canada plans a major presentation at the exposition and hopes to enlist the participation of several provinces as well as that of the private sector.