Wetlands are particularly important carbon sinks, as they cover as little as five and per cent of the Earth's surface area, yet they contain up to 30 per cent of its carbon.

Credit: Getty

Over $609,000 to UdeM to study carbon in wetlands

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IN 5 SECONDS

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As part of a $12-million inter-university research program, geography professor Oliver Sonnentag will help document the long-term storage potential of this chemical element in Canada.

Oliver Sonnentag

Credit: Amélie Philibert, Université de Montréal

An inter-university research team involving Université de Montréal geography professor Oliver Sonnentag has been awarded grants totalling more than $12 million to continuously measure the amount of carbon captured by natural and disturbed wetlands in Canada.

The funding – including $609,300 to Sonnentag – was announced Monday at Université du Québec à Montreal, whose geography professor Michelle Garneau, an internationally recognised expert on the issue of carbon and wetlands, leads the project.

Three other Quebec universities – McGill, Laval, and Université du Québec à Trois-Rivières – are participating. Also involved are Quebec's Environment Department, the Nature Conservancy of Canada, and Ducks Unlimited Canada.

"Wetlands are particularly important carbon sinks," said Sonnentag. "They cover as little as five and per cent of the Earth's surface area, yet they contain up to 30 per cent of its carbon. Fourteen per cent of the world's wetlands are in Canada, and in Quebec, where they're mostly peat bogs, they store between 8 and 10 billion tonnes of carbon. That's a lot!"

The project is unique in Canada.

"Its goal is to broaden knowledge of the carbon sequestration potential of the various types of environment subject to natural and anthropogenic pressures, with a view to supporting the conservation, rehabilitation and management of wetlands, and thus limiting greenhouse gas emissions," said Garneau. "It will also be used to provide the various levels of government with the tools they need to draw up regional plans for the conservation and development of wetlands and water environments."

Of the more than $12 million in funding for the project, $3.38 million comes from the Alliance Program of the Natural Sciences and Engineering Research Council of Canada (NSERC). This sum is in addition to a $8.67-million grant from the Quebec government awarded to Garneau as part of the province's Green Economy Plan for the study of carbon balances in natural and disturbed wetlands in southern Quebec.

In addition to Sonnentag and Garneau, the research team includes UQAM biology professor Paul del Giorgio, McGill University geography professor Sara Knox, Vincent Maire and Alexandre Roy (environmental sciences) of Université du Québec à Trois-Rivières, and Marc-André Bourgault (geography) and Evelyne Thiffault (forestry, geography and geomatics) of Université Laval.

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