OF DIDYMO, ATLANTIC SALMON AND THE MANAGEMENT OF FEAR

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In August of 2006, news of the first documented bloom of didymo (*Didymosphenia geminata*) in a North American Atlantic salmon (*Salmo salar*) watercourse hit the Matapedia River, Quebec. This fell like a thunderbolt upon communities dependent on the salmon for their livelihoods. The Matapedia bloom eventually grew to extend along about 30 km of the river, covering up to 100% of the substrate with a carpet about 2.5 cm thick. Subsequent sampling in 2006 by Quebec government biologists detected drifting didymo cells in 6 of 12 neighboring Atlantic salmon rivers (Simard and Simoneau, this Proceedings). To the angling industry, it appeared that there was a real risk of the imminent development of didymo carpets very soon in many of the continent's premier Atlantic salmon rivers.

Atlantic salmon sports fisheries are big business in North America, generating about $175 million (Canadian) per year in economic activity and providing > 2000 jobs in rural areas where alternate employment opportunities are difficult to obtain (Whoriskey and Glebe 2002, MacIntosh 2001). Atlantic salmon populations in North America at present are depleted compared to historic levels, due to a combination of accumulated anthropogenic impacts (Watt 1988,1989), and more recently a decline in sea survival during the species' oceanic feeding migration (ICES 2007). Didymo blooms were widely viewed as a potential additional stressor for Atlantic salmon, and the Matapedia situation generated an intense burst of negative media reports. The Atlantic salmon world is well organized and wired, with multiple electronic channels of information exchange operating. News of the didymo bloom spread like wildfire.

Fisheries management has a little bit to do with managing fish, and a great deal to do with managing people, especially their fear for the preservation of their economic welfare and traditional ways of life. Fear is fed by an absence of reliable information. Local river managers and biologists had little information on hand about didymo at the time that the media storm hit, and the negative publicity surrounding the didymo bloom translated directly into cancellation of fishing bookings, fuelling the anxiety.

It was to address this climate of fear in a timely fashion that the Atlantic Salmon Federation (ASF) pledged its support to this workshop. The ASF had a number of hoped-for outcomes from the meeting, which perhaps not surprisingly dovetailed completely with the hopes of conference organizer Dr. Max Bothwell who has been thinking about didymo for many years. The first was to bring managers confronting didymo for the first time together with both didymo experts and managers with experience dealing with blooms in sport fishing rivers. Here we wished to rapidly transmit to the "naïve" managers the information they needed to understand the biology of didymo, its' present distribution, how it spreads, and what tools were available to help control the species. The second was to specifically review what was known about didymo impacts upon Atlantic salmon and other anadromous species, with an eye to assessing potential impacts upon the Atlantic salmon and its fishery. Finally, we hoped that the timely and accurate summary of information provided by the workshop would provide a common basis from which managers

newly confronting didymo blooms could build the customized communications plan that they needed. We felt that this could significantly reduce confusion in the media.

In our estimation, this workshop admirably met all of these goals. Notes from the meeting have circulated widely, and this proceedings document will provide an additional valuable record.

On behalf of the ASF, I thank the presenters and participants in the workshop for sharing their knowledge, and we offer our gratitude to the Organix Foundation, Environment Canada and the Government of the Province of Quebec for their sponsorship. Finally, Dr. Max Bothwell worked tirelessly on the workshop program, and has been an unflagging source of expert advice and collaboration in aid of those of us in North America who were encountering didymo for the first time. We deeply appreciate his efforts.

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