VALVE MORPHOLOGY OF *DIDYMOSPHENIA GEMINATA* IN PATAGONIA, ARGENTINA.

Silvia Sala[1], Viviana Sastre[2], Noelia Uyua[2], Martha Ferrario[1] & Norma Santinelli[2]

[1]Departamento Científico Ficología, Museo de La Plata, Universidad de La Plata

[2]Laboratorio de Hidrobiología, Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia

The presence of *Didymosphenia geminata* in South America was registered in 1964 in Chile , although this mention was unnoticed when the species was reported as nuissance in other regions of the world. In August 2010 the species was registered in Argentina for the first time a few months after masive proliferations of the species were reported in Chile. The species was found in Futaleufú River, Chubut Province (43º10'44.9"S/71º39'7.7"W), that belongs to a patagonian Andean basin shared by Chile and Argentina.

The early mention of the species in South America made us wonder if it is the same species that was transported through the world by fisherman or if the species was in our rivers but in low densities to be registered. It is important to note that up to now patagonian rivers were not exhaustively studied.

To elucidate this problem we first analysed with light (LM) and scaning electron microscope (SEM) specimens from the population living in the Futaleufú River, compare it with other *Didymospehenia* species and with the materials from Chile.

Periphyton samples were collected in september 2010 and April 2011 and analysed with an Olympus CX31 with a phase contrast LM and a JEOL JSM-6360LV SEM.

This analysis confirms that the specimens collected in Argentina correspond to *Didymosphenia geminata.* The comparison with materials from Chile, show that our specimens are larger but have a lesser length/width relationship and also have diferences in ultrastructural details –e.g., the terminal raphe fissures. Considering that the compared populations live in distant places but in the same basin and are contemporary it is most likely to think that they correspond to two diferent morphotypes adapted to their habitats than recently transported from Chile to Argentina. To reinforce or rejet this idea and to compare Chubut population with others around the world, molecular studies will be held.