

# Séminaire Grand Public



CONFÉRENCIER  
INVITÉ

Mardi 16 Novembre 2021 à 11h

Salle des  
séminaires IBS &  
visioconférence

Institut de biologie structurale - 71 avenue des Martyrs CS 10090 38044 Grenoble Cedex 9 - T.+33 (0)4 57 42 85 00

[www.ibs.fr](http://www.ibs.fr)

par **H. William Detrich**

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Marine Science Center

Invited Guest at the IBS for 3 months

## **The ICEFISH Cruise: In Pursuit of Sub-Antarctic Notothenioid Fish from Chile to South Africa**

Fish belonging to the order Notothenioidei dominate the fish fauna south of the Antarctic Convergence, which isolates the icy Southern Ocean from the warmer oceans to the north. Antarctic notothenioid species evolved from a temperate ancestor south of the Convergence as the Southern Ocean cooled over 40 million years to its current frigid temperature of  $-2^{\circ}\text{C}$ , the freezing point of natural seawater. Meanwhile, sub-Antarctic notothenioid species north of the Convergence evolved in the temperate waters around Patagonian South America, New Zealand, and Australia. Because Antarctic notothenioids live in the presence of ice but sub-Antarctic notothenioids never experienced freezing conditions, the two groups can be compared to determine the cold adaptations of the Antarctic species (e.g., antifreeze glycoproteins). However, such comparisons are difficult because the sub-Antarctic notothenioids are rarely studied, especially at the genetic level.

To fill this gap, I proposed the ICEFISH Cruise to sample sub-Antarctic notothenioids at islands in the South Atlantic to the US National Science Foundation, and the cruise was funded for the Southern hemisphere winter of 2004. I secured the US Research Vessel/Ice Breaker *Nathaniel B. Palmer* and recruited an international team of 32 scientists from seven nations (Australia, France, Germany, Italy, New Zealand, United Kingdom, United States). Sailing from Punta Arenas, Chile, on 17 May, we fished the Burdwood Banks, Falkland Islands/Islas Malvinas, South Georgia, South Sandwich Islands, Bouvetøya, and Tristan da Cunha before finishing the cruise in Cape Town, South Africa, on 17 June. Please take your seasickness pills and join me as we relive the ICEFISH Cruise and fish for sub-Antarctic notothenioids!

*Hôte : Dimitrios Skoufias (IBS/groupe EPIGEN)*

L'accès au campus EPN nécessite un avis de rendez-vous,  
merci de le demander au moins 48h à l'avance à [ibs.seminaires@ibs.fr](mailto:ibs.seminaires@ibs.fr)

Ce séminaire sera également retransmis par visioconférence :

<https://cnrs.zoom.us/j/97797583767?pwd=SGZhNDUrUVdDZkRLbytvaGlR3lrdz09>

(ID de réunion : 977 9758 3767- Code secret : D5yMBC)