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Dr. Jennifer Nielsen
USGS Alaska Science Center
1011 East Tudor Rd
Anchorage, AK 99503

Dear Jennifer,

I write to offer my whole-hearted support for the nomination of Dr. David Fournier for the American Fisheries Society William E. Ricker Resource Conservation Award. Fournier's development of the AUTODIF library and ADModel Builder have revolutionized the way biologists approach data. These software tools have enabled the construction of truly integrated statistical models that provide statistically superior tools for conservation of fish stocks. It is no longer necessary to omit data because they do not meet the arbitrary assumptions of some "canned" software. Instead, it is possible to include a diversity of data in statistical models. This power has revolutionized stock assessment in fisheries by allowing complete integration of catch and effort data from multiple fleets fishing the same stock, along with size-frequency data, catch-at-age data, and tagging data into a single statistical model with the appropriate likelihood. It is difficult to exaggerate the importance of this intellectual and computational breakthrough.

The application Fournier's software in the field of fisheries science is not restricted to stock assessment. The very first published AUTODIF application was to the behavioral physiology of bigeye tunas[1]. ADModel builder is the foundation on which the **`kftrack`** and **`trackit`** software for analysis of archival tag position data are based. The AUTODIF library is also used in the SEAPODYM software for analysis of the effects of long-term climate change on stocks of oceanic top predators[2]. The power of Fournier's contribution to fisheries science is the idea of integrated statistical models; the software is the tool to implement the idea.

Finally and on a personal note, I have known Fournier since the 1970s when we were both young scientists in Nanaimo (and where we both interacted with a "retired" Bill Ricker). Since those days, Fournier has been a close collaborator, mentor and friend. For those with a willingness to learn something new, Fournier is a patient teacher. He has shown me the

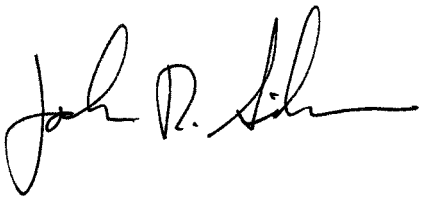
[1] Holland, K. N., R.W. Brill, R.K.C. Chang, J.R. Sibert and D.A. Fournier. 1992. Physiological and behavioural thermogregulation in bigeye tuna (*Thunnus obesus*). *Nature* 358:410-412.

[2] Senina, I., P. Lehodey and J. Sibert. (in press). Adjoint-based parameter estimation for basin-scale ecosystem-linked population models of large pelagic predators: application to skipjack tuna. *Prog. Oceanog*

importance of applying mathematical rigor to the analysis of biological problems and helped to place the models used in biology in the wider and more general context of mathematics. He has also assisted many students and fisheries scientists to begin to think rigorously about their data.

Bestowing the Ricker award on Dave Fournier is highly appropriate given Bill's many seminal contributions to quantitative analysis of fisheries data.

Sincerely,



John Sibert

Manager, PFRP