

# **OHRC Advisory Committee**

## **“Research Report”**

**12 March 2012**

**David L. G. Noakes**

**Professor & Senior Scientist**  
**OSU - OHRC**

# Education and Outreach

- Josh Williams – M. Sc. thesis research
- Allison Evans – Ph.D. research
- Jeremiah Psiropoulos - Undergraduate Research Projects
- Sierra Lewis – M. Sc. research
- Susan Benda – M. Sc. research
- April Smith – MSc Thesis Defense– February 2012
- Florida State University – Visiting Professor – January 2012
- Fish Nutrition Workshop - OHRC (February 2012)
- OCAMP – 13 December 2011, 11 February 2012
- FW 488/489, Winter 2012, Spring 2012 – homing and straying
- FW 473 Fish Ecology – Spring 2012
- FW 599 Fish Ecology & Conservation – Spring 2012

# Research Funding Applications

- Noakes & Schreck – COE – funded (2 years +)
- Noakes et al. – Oregon Sea Grant – funded (2 years)
- Cole, Noakes & Kristjansson – NSF Pre-Proposal (pending)
- Noakes – Moore Foundation (in progress)

# Research Discussions

- John Zauner, Todd Alsbury, Ryan Couture, Kevin Goodson, David Noakes, “others” – ODFW – “Clackamas & Sandy rivers research; coho research”
- David Noakes, Kathleen Cole, Neil Thompson– “sex ratios in hatchery and wild steelhead”
- Shaun Clements, Ryan Couture, David Noakes – “Alsea River steelhead smolt radio tracking”
- David Noakes, Carl Schreck, Cam Sharpe, David Griffiths, Eric Billman, Ryan Couture – “Chinook salmon surrogates”
- David Noakes, Andy Dittman, Ryan Couture, Joseph O’Neil – “olfactory imprinting”
- Desiree Tullos, Jason Dunham, David Noakes –” engineered log jams and fish behavior”
- Bob Denahy, David Noakes – “silt, foraging and growth”
- Guillermo Giannico, Carl Schreck, David Noakes – “fish passage”
- Yongwen Gao, Robbins Church, David Noakes – “isotopes – water, fish, otoliths”
- ODFW, David Noakes – “Lower Columbia River chum salmon restoration”

# Publications

- Nithirodpagdee et al. stream fish community ecology. *Environmental Biology of Fishes* DOI: 10.1007/s10641-012-9985-5
- Noakes et al. Design of a trap for larval lampreys. *Journal of Great Lakes Research* (in revision)
- Leblanc et al. VIE tagging small salmonids for studies of growth and behavior. *NAJFM* (in press)
- Li, Noakes et al. Can humans coexist with fishes? *Environmental Biology of Fishes* DOI: 10.1007/s10641-011-9866-3
- Gao, Banks & Noakes. Statistical analysis of otoliths: hatchery and wild discrimination. *Environmental Biology of Fishes* (in revision)
- McPhee, Noakes & Allendorf. Developmental rate: A unifying mechanism for sympatric divergence in postglacial fishes? *Current Zoology* 58 (1): 21–34, 2012.
- Kristjansson et al. Environmental variability and phenotypic plasticity. *Ecology & Evolution* (in press)
- Ismail, Sampson & Noakes. Endemic lake fishes. (in preparation)
- Kristjansson et al. Patterns of diversity in salmonids. *Evolution* (in review)

# Publications (continued)

- Leblanc et al. Importance of egg size in salmonid fishes. Evolution (in review)
- Schemmel et al. EMG tagging and behavior of steelhead. NJFM (in press)
- Romer et al. steelhead smolt survival in coastal Oregon rivers. EBFi (in revision)
- Noakes. Baby talk: patterns of development in fishes. LAS (submitted)
- Noakes & Schreck. Smolt behavior and survival. Osprey magazine (in preparation)
- Fish & Fisheries – edited books: (1) Jonsson & Jonsson – Ecology of Atlantic salmon and brown trout; Makino et al. - Fisheries management in Japan; Sadovy & Colin – Reef fish spawning aggregations; McDowall – New Zealand freshwater fishes; Beamish & Rothschild – Future of fisheries Science in North America

Noakes, D. L. G., P. Rand, B. Berijikian & T. Pearson (co-editors).

Ecological interactions of wild and hatchery salmon. Special Volume, Environmental Biology of Fishes (May 2012).

OnLine First

<http://springerlink.com/content/102877/>

# “Salmon Migration”

D. Noakes & P. Klimley (co-editors)

Special Issue of Environmental  
Biology of Fishes

OnLine First (December 2012)

[http://science.calwater.ca.gov/stage/  
sci\\_news\\_0610\\_tags.html](http://science.calwater.ca.gov/stage/sci_news_0610_tags.html)

# Threatened Fishes: Fish Conservation

D. Noakes

Special Issue of Environmental Biology of Fishes

OnLine First (October 2012)

<http://www.springerlink.com/content/102877/?Content+Status=Accepted>

# “Otoliths: microstructure and microchemistry”

- Yongwen Gao & David Noakes (Co-Editors)
  - Environmental Biology of Fishes

<http://www.springerlink.com/content/102877/?Content+Status=Accepted>

Research Conferences

Presentations

# Research Conferences

- Oregon AFS – February 2012
- Oregon Sea Grant – Coastal Planning – March 2012
- World Fisheries Congress – Edinburgh, Scotland – May 2012
- Ecology, Ethology & Evolution of Fishes – University of Windsor – June 2012
- International Fish Biology Congress – Madison, Wisconsin – July 2012
- American Fisheries Society – Minneapolis, August 2012

# Research Projects and Proposals

# “Hatch box” survival & “Egg Planting” (in progress)

ODFW/OSU – Coos research request

Moist Air Incubation – operations research

Otolith marking – operations research (oxygen isotopes)

Egg planting, hatch boxes – March 2012

# Research Project

- Olfactory Imprinting – incubation
- Andy Dittman, David Noakes, Ryan Couture
- Chinook salmon, steelhead
- Ongoing

# Research Project

- Geomagnetic Imprinting
- David Noakes, Ken Lohmann, Andy Dittman, Sam Chan, Pete Klimley, Tom Quinn, Nathan Putman, Michael Banks, Jennifer Nielsen, Carl Schreck
- June 2012

# OHRC Research

## Homing and Straying

Oregon Sea Grant Funded – 2012 - 2013

Dr. Nathan Putman – North Carolina  
State University – Postdoctoral  
Researcher – June 2012

# Research Project

- Shaun Clements, Ryan Couture, David Noakes  
“ODFW”
- “Tagging and tracking adult steelhead in Alsea River”
  - related to ODFW steelhead management
  - Volunteer training
  - Coordination with Alsea Sportsmen’s Association

# Research Project

- Hatchery: Wild Interactions
- ODFW – Clackamas and Sandy rivers
  - Acclimation sites
  - Juveniles
  - Adults
- Proposal under revision by ODFW, PGE

# Research Project

- Steelhead mate choice
- Replication of earlier test
- Males with and without adipose fins – pedigree analysis of individual broods
- March 2012

# Fish Nutrition Workshop

## OHRC

February 2012

coordination with Abernathy

# Otolith Workshop

## OHRC

May/June 2012

coordination with OSFW, OR AFS,  
BPA, Oregon Sea Grant, GLFC

# Chinook Salmon Workshop

## OHRC

June 2012

coordination with ODFW, USACOE,  
Bozeman, Abernathy Fish  
Technology

# Chinook Surrogate Project

- US ACOE, ODFW
- Proposal sent to ODFW Advisory Committee for Information
- Dr. Eric Billman – Faculty Research Associate
- OHRC studies: feeding, density

# Chinook surrogate Project