



## Albert E. Giorgi, Ph.D.

*President, Senior Fisheries Scientist, Redmond Office*

Dr. Albert E. Giorgi has been conducting research on Pacific Northwest salmonid resources since 1982. Prior to 1982, he conducted research in marine invertebrate ecology and marine fish life history. In his capacity as a salmon biologist he specializes in migratory behavior, juvenile salmon survival studies, biological effects of hydroelectric development and operation, and population modeling. His research approaches include the use of radio telemetry, acoustic tags and PIT-tag technology. In addition to his research activities he acts as a technical analyst and advisor to public agencies and private parties. Dr. Giorgi teams with structural and hydraulic engineers in the design and evaluation of fishways and fish bypass systems. He is regularly involved in a variety of formal consultations with federal agencies regarding ESA issues pertaining to salmon and steelhead in the Pacific Northwest, particularly with regard to water management and dam operations.

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### Expertise

- ◆ Hydropower, irrigation and storage dam impacts on anadromous and resident fish (salmon, trout, lamprey);
- ◆ Design and evaluation of fish bypass systems
- ◆ Smolt survival and behavior studies: telemetry, acoustic tags and PIT tags
- ◆ Migratory behavior of salmon and trout
- ◆ Fish passage modeling
- ◆ Effects of water management on salmonid populations
- ◆ Salmon ecology

### Education

- ◆ Ph.D., 1981, Fisheries, University of Washington
- ◆ M.A., 1975, Biology, Humboldt State University
- ◆ B.A., 1972, Biology, Humboldt State University

## **Professional Affiliations & Appointments**

- ◆ National Research Council: Committee on Water Resources Management, Instream Flows, and Salmon Survival in the Columbia River, 2003
- ◆ American Fisheries Society
- ◆ American Institute of Fisheries Research Biologists
- ◆ Associate Editor, North American Journal of Fisheries Management (1980s)
- ◆ Univ. Washington, Affiliate Faculty, 1989-2003

## **Professional Experience**

- ◆ NOAA Research Scientist 1978-1990, Seattle WA.
- ◆ Senior Scientist, BioAnalysts, Inc. 1990-present

## **1990 - Present: Roles & Funding Agencies**

- ◆ **Roles**
  - Research Scientist – Design and conduct field studies regarding: effects of dam operations on spawning behavior of Chinook, smolt migratory behavior and survival, fish bypass design and evaluation, hydropower effects on migratory behavior of adult salmon and steelhead, bull trout and lamprey.
  - Technical analyst- fish passage, survival, water management, bypass system effectiveness
  - Technical advisor- ESA, Biological Opinions, Habitat Conservation plans, dam operations and relicensing
- ◆ **Funding Agencies**
  - Army Corps of Engineers, Bonneville Power Administration, Northwest Power and Conservation Council, Chelan County PUD, Douglas County PUD, Grant County PUD, CH2MHill, INCA Engineering, Montgomery Watson Harza Engineering, ENSR Engineering

## **Publications (select)**

National Research Council (contributing author). 2004. Managing the Columbia River, Instream Flows, Water Withdrawals and Salmon Survival. National Academy of Science Press, Washington D.C. 246 pages.

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- Skalski, John R., James Lady, Richard Townsend, Albert E. Giorgi, John R. Stevenson, Charles M. Peven, Robert D. McDonald. 2001. Estimating inriver survival of migrating salmonid smolts using radio telemetry. *Canadian Journal of Fisheries and Aquatic Sciences* 58 (10): 1987-1997.
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- Giorgi, A., D. Miller, and B. Sanford. 1994. Migratory characteristics of juvenile ocean-type chinook salmon in the John Day Reservoir on the Columbia River. *Fishery Bulletin*. 92:872-879.
- Muir, W., A. Giorgi, and T. Coley. 1994. Behavioral and physiological changes in yearling chinook salmon during hatchery residence and downstream migration. *Aquaculture*. 127:69-82.
- Muir, W., W. Zaugg, A. Giorgi, and S. McCutcheon. 1994. Accelerating smolt development and downstream movement in yearling chinook salmon with advanced photoperiod and increased temperature. *Aquaculture*. 123: 387-399.
- Giorgi, A. 1992. Are we failing to capture critical details in relationships derived from smolt system survival estimates? pp. 121-126 *In: Proceedings of AFS Chinook Smolt Survival Workshop*. American Fisheries Society, Idaho Chapter, Moscow, ID.

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- Wilson, J., A. Giorgi, and L. Stuehrenberg. 1991. Method for estimating spill effectiveness for passing juvenile salmon and its application at Lower Granite Dam on the Snake River. *Can. J. Fish. Aquat. Sci.* 48:1872-1876.
- Stuehrenberg, L., A. Giorgi, and C. Bartlett. 1990. Pulse-coded radio tags for fish identification. pp. 370-374, *In*: Parker, N., A. Giorgi, R. Heidinger, D. Jester, E. Prince, and G. Winans, Eds. *Fish-Marking Techniques: Proceedings of the International Symposium and Educational Workshop on Fish-Marking Techniques*. American Fisheries Society, Symposium #7, Bethesda, MD.
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- Johnson, G., A. E. Giorgi, C. Sweeney, M. Rashid, and J. Plump. 1999. High Flow Outfalls for Juvenile Fish Bypasses: Preliminary Guidelines and Plans for Research and Implementation. Final Report. Portland OR: US Army COE.
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- Giorgi, A. 1993. Status of Kootenai River white sturgeon. Don Chapman Consultants, Inc. for Pacific Northwest Utilities Conference Committee, Portland, OR. 59+ pp.
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- Skalski, J., and A. Giorgi. 1993. Juvenile passage program: a plan for estimating smolt travel time and survival in the Snake and Columbia rivers. Bonneville Power Administration, DOE/BP-35885-3, Portland, OR. 55 pp.
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- Giorgi, A., L. Stuehrenberg, D. Miller, and C. Sims. 1985. Smolt passage behavior and flow-net relationship in the forebay of John Day Dam. Bonneville Power Administration. Portland, OR. 184 pp.
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