

Michael R. Link, MRM
Senior Scientist
President, LGL group of companies



EDUCATION

- 1995 Masters of Natural Resources Management (MRM), School of Resource and Environmental Management, Simon Fraser University, Burnaby, BC, Canada
- 1987 Bachelor of Science (Biology), Simon Fraser University, Burnaby, BC, Canada
- 1984 Forest Resource Technology (Associate Degree), British Columbia Institute of Technology, Burnaby, BC, Canada

PROFESSIONAL EXPERIENCE

- 2010-present Senior Scientist, President, LGL group of companies, LGL Alaska Research Associates, Inc., Anchorage, Alaska
- 2003-2009 Senior Scientist, Vice President, Alaska Operations, LGL Alaska Research Associates, Inc., Anchorage, Alaska
- 2000-2002 Fisheries Scientist, LGL Limited, Sidney, BC, Canada, V8L 3Y8
- 1999-2000 Research Project Leader for Bristol Bay salmon and herring, Department of Fish and Game, Anchorage, AK
- 1992-1999 Fisheries Biologist, LGL Limited, Sidney, BC (1992-98), LGL Alaska Research Associates, Inc., Anchorage, AK (1998-99)
- 1991 Deckhand, commercial salmon fishing, Taku River, BC.
- 1986, 1989-91 Fisheries Biologist, Dept. of Fisheries & Oceans, Whitehorse, YT
- 1984-85 Fisheries Biologist, contract to the Dept. of Fisheries & Oceans, Vancouver, BC
- 1983-85 Fisheries Technician, Dept. of Fisheries & Oceans, New Westminster, BC
- 1982 Assistant Biologist, Alberta Fish & Wildlife Branch, Edson, AB

Details of Professional Experience (~25 years, current through ~2009)

- 2008-present Designed and co-manage a study to assess the movement and abundance of fish in the Chuit River watershed as part of NEPA (EIS) baseline studies and for pre-development monitoring for the Alaska Surface Coal Mining and Reclamation Act.
- 2006-2007 Designed and co-managed a two-year study to assess the distribution and relative abundance of fish in the nearshore Alaskan Beaufort Sea and to assess the potential impacts of backfill mound from a buried subsea pipeline on fish movements.

Designed and managed a passive acoustics study to measure in-water ambient, vessel, and construction sounds associated with an offshore drilling island in the nearshore Alaskan Beaufort Sea.

Designed baseline studies for marine mammal and marine fish in Upper Cook Inlet for an EIS and provided technical support for permitting a marine coal terminal under the Alaska Surface Mining Reclamation Act (ASMCRA) and the Marine Mammal Protection Act (MMPA).

Testified and provided technical support to the Alaska Board of Fisheries for Bristol Bay management issues before the Board; explained the differences between optimizing biological and economic returns from the fishery.

Assisted with the preparation of three Incidental Harassment Authorizations (IHAs) and associated marine mammal monitoring programs for seismic operations in the Chukchi and Beaufort seas.

- | | |
|--------------|--|
| 2003-present | Manage the Port Moller test fishery program, a 7-day per week, 30-day offshore gillnet fishery in the Bering Sea used to assess the abundance and stock composition of the Bristol Bay salmon return. Provide a daily synthesis of the Port Moller data to hundreds of industry participants including fishery managers, fishermen, processors, and fish buyers in the U.S., Asia, and Europe. |
| 2001-present | <p>Under a contract arrangement, act as Executive Director (2001-2008) and Chief Scientist (2009-2010) of the Bristol Bay Science and Research Institute (BBSRI), a regional non-profit (501.c.3) corporation founded to conduct fisheries research and monitoring projects in Bristol Bay. Developed and maintain a strategic plan for the Institute. Design, develop, and manage several stock assessment programs for Bristol Bay salmon. Train and supervise local residents in the collection of stock assessment data from Bristol Bay salmon. Work closely with the Alaska Department of Fish and Game to secure funding and conduct long-term stock assessment programs for the Bay. Work with a 7-member Board to adhere to financial and corporate reporting procedures.</p> <p>Working with the Native Village of Eyak, proposed, designed, and direct a long-term cooperative research program to assess Chinook salmon abundance in the Copper River, Alaska.</p> |
| 2003-2006 | Led a research team/initiative to critically examine alternative hypotheses to explain the collapse of the Kvichak sockeye salmon stock. |
| 2005-2006 | Designed and provided technical support to a mark-recapture program for sockeye on the Copper River using passive induced transmitters. |
| 2004-2005 | Designed and co-managed (with Dr. D. Funk) a 14-month baseline study of beluga whale habitat use in Upper Cook Inlet, Alaska, for the Knik Arm Bridge and Toll Authority. Assisted with the preparation of a petition for regulations for incidental take authorization under the Marine Mammal Protection Act to authorize takes of the depleted Cook Inlet beluga whale associated with pile driving. |

- 2001-2005 Member of the Norton Sound Science and Technical Committee. A panel set up to develop a research plan, and on an annual basis over 6 years evaluate the scientific and technical merit of proposals for the expenditures from a \$5 million congressional earmark.
- 2002-2003 Designed and managed a large interdisciplinary research project to quantify the impacts and feasibility of options to restructure the Bristol Bay salmon fishery.
- 2002 Consulted to ADF&G biologists to review and provide input on a multiple fishwheel and tagging program designed to provide system-wide mark-recapture estimates of salmon escapement to the Kuskokwim River.
- 2001 Technical advisor to a planning process to secure funding for a comprehensive salmon research initiative for Western Alaska salmon.
- Assisted several regional groups during an Alaska Board of Fisheries meeting. Conducted a technical review of a simulation model done to determine the optimum escapement goals for the Nushagak and Wood rivers, Alaska; the two stocks have differing productivity but are caught in a mixed-stock fishery. Prepared a report and presented the analysis to the Alaska Board of Fisheries. Conducted a review and analysis of chum salmon fishery in the False Pass June fishery.
- 2000-2001 Developed and directed a project to use fishwheels on the Skagit River, WA, to assess the abundance of chinook salmon.
- 2000 Designed and directed three projects to evaluate remotely operated video and side-looking acoustic systems to enumerate all species of salmon in coastal and interior rivers on the North Coast of BC.
- Conducted a written review of salmon escapement monitoring in Alaska, British Columbia, and the Yukon Territory for the University of Washington and a blue-ribbon panel of scientists convened to examine the feasibility of validation monitoring to evaluate salmon restoration activities in the Pacific Northwest.
- Conducted a review of current research related to forecasting Western Alaska salmon, the effects of changes in ocean productivity on these fish stocks and gaps in current research. Collated ideas and input from fisheries scientists from universities in Washington, Alaska, British Columbia, and from the U.S. and Canadian governments and used this information to help guide planning efforts to secure funding for a multi-million dollar research initiative for Western Alaska.
- Served on a Federal-Provincial-Tribal technical committee to oversee a multi-million dollar salmon research and management program (Nass River).
- Assisted tribal organizations and the U.S. Fish and Wildlife Service in Alaska to design and develop several fisheries research projects on the Copper River that could be conducted by local organizations.

1999-2000 As Research Project Leader for Bristol Bay salmon and herring (ADF&G), designed, directed and managed a suite of research projects intended to assess the abundance and productive capacity of fish stocks in the Bristol Bay region of Alaska. Primary responsibilities included preparation of preseason forecasts of the abundance of sockeye and chinook salmon, assessing the strength (abundance) of the sockeye salmon return during the season, and regularly review and evaluate the escapement goal policy for numerous stocks and species of fish. Worked closely with fishery managers to achieve optimal allocation and harvesting of salmon. Acted as regional representative on the statewide sonar committee during its efforts to transition from Bendix to split-beam acoustic systems around the state.

Evaluated existing assessment projects and designed and directed several projects as part of a multi-million dollar “disaster funding initiative”. Assembled and organized several interdisciplinary research teams to address biological and technical issues. Projects included basic biological research to better determine biological escapement goals, applied research to improve escapement monitoring techniques (sonar and test fishing), and applied research to improve acoustic enumeration of salmon smolts.

1992-1999 Designed, implemented and managed a large-scale (\$1 million/year), multi-species fisheries management and stock assessment institution on the remote Nass River, BC. Managed ≥ 20 multi-year fisheries projects from the study-design stage, through to budgeting, management, fieldwork, data analysis and reporting stages. Trained and supervised numerous professional biologists. Supervised and trained a large contingent of field technicians in the collection and preparation of fisheries research and management related data. Designed, built, operated and maintained several large fishwheels used to assess salmon stocks. Supervised and trained 30 local fishery technicians in fisheries research and management, radio-telemetry, database management, fishwheel construction, fish tagging, and biosampling techniques.

Conducted an in-depth analysis (empirically based simulation model) to estimate the value of improving escapement information used to manage a commercial sockeye salmon fishery (part of Masters thesis).

Designed and implemented a comprehensive and innovative procedure for estimating the daily sockeye salmon escapement (catchability-based test fishery combined with a mark-recapture program) to the Nass River for use in the management of a commercial salmon fishery. Subsequently adapted the sockeye escapement monitoring system to one for obtaining in-season escapement estimates of chinook, coho and steelhead.

Designed and implemented a study to estimate the distribution and abundance of chinook salmon in a moderately large (20,000 km²) watershed using radio telemetry and traditional aerial- and water-based survey methods. Critically evaluated and redefined a long-term monitoring program used to obtain estimates of the annual post-season chinook salmon escapement in a cost-effective manner.

Designed and conducted limnological research on sockeye salmon-producing lakes. Analysed limnological data to determine the factors affecting sockeye salmon production from several nursery lakes and develop biological escapement goals.

Designed and managed a multi-year (≥ 5 years) project to capture and sample sockeye salmon smolts (Incline-plane and rotary-screw traps) and estimate the annual size and age composition of the run.

Designed, redesigned, and assisted with split-beam hydroacoustic surveys used to determine the abundance and distribution of juvenile sockeye salmon in nursery lakes.

Designed, supervised, and documented an annual scale collection program from sockeye, chinook, coho, steelhead and pink salmon. Analysed and summarized age and size data.

Designed and conducted intensive spawning ground surveys using aerial, foot and float survey methodology. Conducted over 150 hours of aerial surveys to estimate salmon spawning escapement.

Designed and managed a large-scale radio-telemetry study to determine the effects of capture, handling and tagging on sockeye salmon behaviour and survival.

Managed and supervised a fishway project where four species of salmon ($\geq 200,000$ fish annually) were systematically sampled and enumerated to obtain unbiased estimates of abundance, and age and size composition.

Assisted with the development of a wild coho salmon “key stream” used to estimate the annual marine survival and harvest rates (CWT-based).

Prepared and evaluated a design to create a CWT-based survival and harvest rate indicator stream for a wild chinook salmon population.

Organized and implemented several genetic tissue sampling programs for chinook, sockeye coho, chum and steelhead. Examined the utility of microsatellite DNA for estimating the stock composition of sockeye and chinook salmon runs.

Directed a project to map tide rips in Cook Inlet, Alaska using satellite imagery and local knowledge.

Conducted the analysis and report for an extensive ringed seal aerial survey in the Beaufort Sea that was designed to determine the density of seals in relation to factors (human-induced and natural) thought to affect seals.

Provided independent expert technical review of an interagency program for developing mark-recapture population estimates for a steelhead population on the Bulkey River.

Provided technical advise to tribal organizations on fisheries related studies: the Nisga’a (1992-2001), Gitksan and Tsimshian (1993), Tlingit (1994), Lheit Lit’en (1993 & 96), Yale (1997-98) and Kitsumkalum (2001).

Produced and directed a 20-minute video describing a multi-faceted fisheries research program; the video won a bronze award at the Houston International Film Festival.

1991 (July) Deckhand, commercial salmon fishing on the Taku River, BC.

- 1986,89-91 Enumerated/estimated abundance of all five salmon species using fishwheels (mark-recapture), counting weirs and aerial surveys in northern BC, Southeast AK and the Yukon Territory. Gathered and compiled commercial salmon fishery data for in-season salmon fishery management (and post-season analysis). Provided field support for several salmon radio telemetry studies. Conducted test fishing with gillnets. Seined, trapped and coded-wire tagged juvenile salmon. Supervised, directed and trained fishery technicians. Built, operated and maintained fishwheels to capture adult salmon. Supervised, built and maintained remote field camps in BC and Alaska. Worked closely with members from the Tlingit and Tahltan nations. Worked in remote field locations for extended periods (≤ 12 weeks/trip).
- 1984-85 Designed, implemented and administered two chinook salmon tagging programs. Hired, supervised and trained six technicians and provided logistical support for two field programs. Repaired and maintained boats and field equipment.
- 1983-85 Captured and collected biological/life history data from all species of salmon, Dungeness crabs, prawns and smelt. Supervised field crews, operated and maintained boats, motors and equipment. Deckhand on 38' research vessel. Surveyed and interviewed sport and commercial fishers. Compiled and analysed data. Prepared technical reports. Presented technical data to annual regulatory meetings for Dungeness crab fishermen.
- 1982 Field and laboratory vegetation sampling and analysis for a long-term caribou study. Provided field support for the radio telemetry component of the study. Maintained and operated remote field camps in the Canadian Rockies.

AWARDS

- 1990-92 Simon Fraser University Special Entrance Scholarship, \$3,000 per year for two years, awarded to attract NSERC scholars to the University.
- 1990-92 Natural Sciences and Engineering Research Council (NSERC) Post-Graduate Scholarship, \$14,000 per year for two years. NSERC-PS is national award based on undergraduate performance and references from university faculty.
- 1986-87 British Columbia Scholarship, \$1,000 per year for a first-class standing.
- 1985-87 SFU Open Scholarship. \$1,200 per year for maintaining a first-class standing.

PRIMARY PUBLICATIONS

1. Bue, B.G., R. Hilborn, and M.R. Link. 2008. Optimal harvesting considering biological and economic objectives. *Can. J. Fish. Aquat. Sci.* 65: 691-700.
2. Smith, J.J., M.R. Link, and B.D. Cain. 2005. Development of a long-term monitoring project to estimate abundance of Chinook salmon in the Copper River, Alaska, 2001–2004. *Alaska Fish. Res. Bull.* 11(2):118–134.

3. Link, M.R., and K.K. English. 1999. Creating a sustainable stock assessment program by integrating assessment, research and harvesting. Pages 667-674 in E.E. Knudsen, C.R. Stewart, D.D. MacDonald, J.E. Williams, and D.W. Reiser, editors. *Sustainable Fisheries Management: Pacific Salmon*. Lewis Publishers, Boca Raton, Florida.
4. Schwarz, C.J., M. Andrews, and M.R. Link. 1999. The stratified-Petersen with a known number of unread tags. *Biometrics*, 55, 1014-1021.
5. Link, M.R. and K.K. English. 1998. Aboriginal fisheries and a sustainable future: a case study from an agreement with the Nisga'a Nation in British Columbia. Pages 149-161. In: *Reinventing Fisheries Management* Edited by T.J. Pitcher, P.J.B. Hart and D. Pauly. Kluwer Academic, London, 435 p.
6. Link, M.R., and R.M. Peterman. 1998. Estimating the value of in-season estimates of abundance of sockeye salmon (*Oncorhynchus nerka*). *Can. J. Fish. Aquat. Sci.* 55:1408-1418.

RESEARCH REPORTS (current through 2009)

1. Nemeth, M.J., B.C. Williams, A.M. Baker, C.C. Kaplan, M.R. Link, S.W. Raborn and J.T. Priest. 2009. Movement and abundance of freshwater fish in the Chuit River drainage, Alaska, May through September 2008. Final report prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska for PacRim Coal, L.P. 159 p.
2. Wade, G.D., D.J. Degan, M.R. Link, and S.W. Raborn. 2009. Evaluation of an up-looking sonar system designed to enumerate sockeye salmon smolts on the Kvichak River, 2008. Unpublished report prepared by LGL Alaska Research Associates, Inc., Anchorage, AK, and Aquacoustics, Inc. Sterling, AK, for the Bristol Bay Science and Research Institute, Dillingham, AK, 35 p.
3. Daigneault, M.J., M.R. Link, and M.N. Nemeth. 2009. An historical review of the Bristol Bay smolt monitoring program and recommendations for future smolt sampling. Unpublished report prepared by LGL Alaska Research Associates, Inc. for the Bristol Bay Science and Research Institute, Dillingham, AK. 68 p.
4. Williams, B.C., M.R. Link, M.J. Daigneault, S.W. Raborn, and P.N. Johnson. 2008. Nearshore fish monitoring in the Oooguruk Drillsite area, Alaskan Beaufort Sea, 2007. Unpublished report prepared by LGL Alaska Research Associates, Inc. for Pioneer Natural Resources Alaska, Inc. Anchorage, Alaska. 49 p + Appendices
5. Williams, B. C., C. M. Reiser, and M. R. Link. 2008. Aerial Surveys for Marine Mammals in Eastern Harrison Bay, Alaskan Beaufort Sea, September and October 2007. Unpublished report prepared by LGL Alaska Research Associates, Inc. for Pioneer Natural Resources Alaska, Inc., Anchorage, Alaska, 13 p. + Appendix.
6. Daigneault, M.J., and M.R. Link. 2007. Radio telemetry monitoring of adult Chinook and sockeye salmon in the Nushagak River, 2006. Unpublished report prepared by LGL Alaska Research Associates, Inc. for the Bristol Bay Science and Research Institute, Dillingham, Alaska. 80p.
7. Ruggerone, G.T., and M.R. Link. 2006. Collapse of Kvichak sockeye salmon production brood years 1991-1999: Population characteristics, possible factors, and management implications. Unpublished report prepared by Natural Resources Consultants, Inc. and LGL Alaska Research Associates, Inc. for the North Pacific Research Board, Anchorage, AK and Bristol Bay Science and Research Institute, Dillingham, AK. xiv + 103 p.
8. Markowitz, T.M., and M. R. Link. 2006. Estimating the effects of smolt predation by beluga whales on Kvichak River sockeye salmon. Unpublished report prepared by LGL Alaska Research Associates, Inc.,

- Anchorage, AK, for the North Pacific Research Board, Anchorage, Alaska, and the Bristol Bay Science and Research Institute, Dillingham, Alaska, 47 p.
9. Hannay, D., M. Zykov, and M.R. Link. 2006. Underwater Noise Measurements at the WestShore Coal Terminal, Roberts Bank, British Columbia, September 2006. Unpublished report prepared by JASCO Research, Ltd. and LGL Alaska Research Associates, Inc. for DRven Corporation, Anchorage, AK, 19 p.
 10. Bue, B.G., R. Hilborn, and M.R. Link. 2006. Optimal harvest policies for Bristol Bay sockeye salmon considering biological and economic returns. Unpublished report prepared by Bue Consulting LLC, University of Washington, and LGL Alaska Research Associates, Inc., for the Bristol Bay Science and Research Institute, Dillingham, AK, 48 p. + appendices.
 11. Reiser, C. M, D. S. Ireland, and M. R. Link. 2006 (*revised March 2008*). Aerial Surveys for Marine Mammals in Eastern Harrison Bay, Alaskan Beaufort Sea, September 2006. Unpublished report prepared by LGL Alaska Research Associates, Inc. for Pioneer Natural Resources Alaska, Inc. 12 p.
 12. Williams, B.W., M. R. Link, and M.J. Daigneault. 2006 (*revised March 2008*). Nearshore Alaska Beaufort Sea fish monitoring in the Oooguruk Island area during the open-water season, 2006. Unpublished report prepared by LGL Alaska Research Associates, Inc. for Pioneer Natural Resources Alaska, Inc. Anchorage, Alaska. 48 p. + Appendices
 13. Zykov, M., D. Hannay, and M.R. Link. 2006 (*revised March 2008*). Underwater measurements of ambient and industrial sound levels near Oooguruk Island, Alaskan Beaufort Sea, September 2006. Unpublished report prepared by JASCO Research, Ltd. and LGL Alaska Research Associates, Inc. for Pioneer Natural Resources Alaska, Inc., Anchorage, AK, 44 p.
 14. Fechhelm, R.G., G.B. Buck, and M.R. Link. 2006. Nearshore Beaufort Sea Fish Monitoring in the Prudhoe Bay region, 2006. Report for BP Exploration (Alaska) Inc. by LGL Alaska Research Associates, Inc., Anchorage, Alaska. 81 p.
 15. Coauthor of 6 of 9 chapters, *In*: Funk, D.W., T.M. Markowitz and R. Rodrigues (eds.) 2005. Baseline studies of beluga whale habitat use in Knik Arm, Upper Cook Inlet, Alaska, July 2004-July 2005. Rep. from LGL Alaska Research Associates, Inc., Anchorage, AK, in association with HDR Alaska, Inc., Anchorage, AK, for the Knik Arm Bridge and Toll Authority, Anchorage, AK, Department of Transportation and Public Facilities, Anchorage, AK, and the Federal Highway Administration, Juneau, AK. 199 p. + Appendices.
 16. Fechhelm, R.G., B.E Haley, G.B. Buck, G.D. Wade, and M.R. Link. 2005. Nearshore Beaufort Sea Fish Monitoring in the Prudhoe Bay region, 2004. Report for BP Exploration (Alaska) Inc. by LGL Alaska Research Associates, Inc., Anchorage, AK. 72 p.
 17. Daigneault, M.J., B. Nass, and M.R. Link. 2005. Radio telemetry monitoring of adult sockeye salmon in the Nushagak River, 2005. Unpublished report prepared by LGL Alaska Research Associates, Inc. for the Bristol Bay Science and Research Institute, Dillingham, Alaska.
 18. Habicht, C., C. Smith and M.R. Link. 2005. Estimating run timing of Lake Clark sockeye salmon relative to other Kvichak River drainage populations. U.S. Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, Study No. 04-4011. Alaska Department of Fish and Game, Gene Conservation Lab, Commercial Fisheries Division, Anchorage, Alaska. 17p.
 19. Fechhelm, R.G., W.B. Griffiths, B.E Haley, and M.R. Link. 2004. Nearshore Beaufort Sea Fish Monitoring in the Prudhoe Bay region, 2003. Report for BP Exploration (Alaska) Inc. by LGL Alaska Research Associates, Inc., Anchorage, Alaska. 73 p + Append.

20. Link, M.R., M.L. Hartley, B. Waldrop, J.E. Wilen, and J. Barnett. 2003. An analysis of options to restructure the Bristol Bay salmon fishery. Unpublished report prepared for the Bristol Bay Economic Development Corporation, Box 1464, Dillingham, AK, and the Joint Legislative-Salmon-Industry Task Force, Alaska Legislature, Juneau, AK, 104 p. + 193 p. of Appendices.
21. Bussanich, R.J., M.R. Link, C.E.J. Mussell, P. Hahn, and P. Castle. 2003. Evaluation of gill nets for capturing chinook salmon (*Oncorhynchus tshawytscha*) for mark-recapture studies on the Skagit River, 2002. Unpublished report prepared for U.S. Chinook Technical Committee, U.S. Section Office, Northwest Region National Marine Fisheries Service, Seattle, WA. and Seattle City Light, Seattle, WA. 72 p.
22. Bocking, R.C., M.R. Link, B. Baxter, B.L. Nass, and L. Jantz. 2002. Meziadin Lake biological escapement goal and considerations for increasing yield of sockeye salmon (*Oncorhynchus nerka*). Research Document 2002/124. Canadian Science Advisory Secretariat. Prepared for the Pacific Stock Assessment and Review Committee, Nanaimo, BC. 55 p.
23. Smith, J.J., and M.R. Link. 2002. Feasibility of using fishwheels for long-term monitoring of Chinook salmon on the Copper River, 2002 Annual Report. U.S. Fish and Wildlife, Office of Subsistence Management, Fisheries Resource Monitoring Program, Annual Report No. FIS01-020-2, Anchorage, Alaska. 84 p.
24. Alexander, R.F., M.R. Link, and R.C. Bocking. 2002. The 2000 fishwheel project on the Nass River, BC. Can. Man. Rep. Fish. Aquat. Sci. 2616: x + 118 p.
25. Link, M.R., M.J. Nemeth, and R. Henrichs. 2001. Feasibility of using fishwheels for long-term monitoring of chinook salmon escapement on the Copper River. U.S. Fish and Wildlife, Office of Subsistence Management, Fisheries Resource Monitoring Program, Annual Report No. FIS01-020-1, Anchorage, Alaska. 49 p. + Appendices.
26. Link, M.R., B.E. Haley, D.J. Degan, S. Moffitt, A.M. Mueller, N. Gove, and R. Henrichs. 2001. Assessing methods to estimate inseason salmon abundance in the lower Copper River. U.S. Fish and Wildlife, Office of Subsistence Management, Fisheries Resource Monitoring Program, Annual Report No. FIS01-021-1, Anchorage, Alaska. 57 p. + Appendices.
27. Smith, J.J., M.R. Link, and P.J.K. Hahn. 2001. Evaluation of a fishwheel and beach seine operation as tools for mark-recapture studies of chinook salmon (*Oncorhynchus tshawytscha*) on the Skagit River, 2001. Unpublished report prepared for U.S. Chinook Technical Committee, U.S. Section Office, Northwest Region National Marine Fisheries Service, Seattle, WA. 44 p.
28. Link, M.R. 2001. Strategic plan for the Bristol Bay Science and Research Institute. Unpublished report prepared by LGL Limited, Sidney, BC, for the Bristol Bay Science and Research Institute, Box 1464, Dillingham, Alaska, 15 p.
29. Link, M.R. 2001. Evaluation of Potential Fishwheel Sites for Capturing Kokanee (*Oncorhynchus nerka*) on the Upper Columbia River Near Golden, B.C. Unpublished report prepared by LGL Limited, Sidney, BC, for the Canadian Columbia River Inter-Tribal Fisheries Commission, 7468 Mission Road, Cranbrook, BC. 20 p.
30. Link, M.R. 2001. Evaluation of Potential Fishwheel Sites for Capturing Salmon on the Skeena River Near Terrace, B.C., Unpublished report prepared by LGL Limited, Sidney, BC, for the Kitsumkalum Treaty Office, Box 544, Terrace, BC. 17 p.
31. Bussanich, R.J., T.C. Nelson, and M.R. Link. 2001. The fishwheel project on the Wannock River, BC 2000. Unpublished Report prepared by LGL Limited, Sidney, BC, for the Rivers Inlet Partnership Group - Fisheries Renewal BC, New Westminster, BC, and Fisheries and Oceans Canada, Vancouver, BC. 84 p.

32. Link, M.R. 2001. Review of the ADF&G analysis of sockeye and chum salmon catch data from the South Peninsula June Fishery, 1996 – 2000: is there evidence of discarding? Unpublished report prepared by LGL Limited, Sidney, BC, for the Bering Sea Fishermen's Association, Anchorage, AK, for submission as an RC to the Alaska Board of Fisheries. 6 p.
33. Link, M.R. 2001. Review of a Simulation Model Developed to Evaluate Alternate Escapement Goal Policies for Sockeye Salmon in the Wood and Nushagak Rivers, Bristol Bay, Alaska. Unpublished report prepared by LGL Limited, Sidney, BC, for the Native Villages of Dillingham and Ekuik, AK. 13 p.
34. Alexander, R.F., and M.R. Link. 2001. The 1998 fishwheel project on the Nass River, BC. Can. Man. Rep. Fish. Aquat. Sci. 2556: xi + 110 p.
35. Link, M.R., R.F. Alexander, and A.C. Blakley. 2001. The 1997 fishwheel project on the Nass River, BC. Can. Man. Rep. Fish. Aquat. Sci. 2555: xi + 100 p.
36. Haley, B.E., G. Tomlins, O.P. Smith, W.J. Wilson, and M.R. Link. 2000. Mapping Cook Inlet rip tides using local knowledge and remote sensing. A final report for the U.S. Department of the Interior, Minerals Management Service, Alaska OCS Region, Anchorage, AK, Contract No. 01-98-CT-30906. OCS Study MMS 2000-025. 67p.
37. Link, M.R., and M. Nemeth. 2000. Monitoring salmon abundance in Alaska, British Columbia and the Yukon Territory: a synopsis of projects in 2000. 17-page Appendix to: *The scientific basis for validation monitoring of salmon for conservation and restoration plans*. Report prepared by the Olympic Natural Resources Center, University of Washington, Forks, WA, 17p.
38. English, K.K., and M.R. Link. 1999. Technical review of the Bulkley/Morice steelhead population estimation project. Unpublished report prepared by LGL Limited for Fisheries Branch, BC Ministry of Environment, Lands and Parks, Smithers, BC, v + 22p.
39. Link, M.R., R.F. Alexander, and K.K. English. 1999. Evaluation of the utility of using fishwheels to assess the abundance of steelhead returning to the Nass River, BC. Unpublished report prepared by LGL Limited for Fisheries Branch, BC Ministry of Environment, Lands and Parks, Smithers, BC, xi + 103 p.
40. Nass, B.L., M.R. Link, B. Baxter, and A.C. Blakely. 1999. Juvenile sockeye studies at Meziadin Lake, 1994 -1997. Report NF97-04 prepared by LGL Limited, Sidney, BC, for the Nisga'a Tribal Council, New Aiyansh, BC, viii + 94 p.
41. Link, M.R., T.L. Olson, and M.T. Williams. 1999. Ringed seal distribution and abundance near potential oil development sites in the central Alaskan Beaufort Sea, Spring 1998. Rep. from LGL Alaska Research Associates, Inc., for BP Exploration (Alaska) Inc., Anchorage, AK. v + 59 p.
42. Gray, D.C., and M.R. Link 1999. Abundance, age, sex, and size statistics for Pacific salmon in Bristol Bay, 1998. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 2A99-37.
43. Link, M.R., and B.L. Nass. 1999. Abundance of chinook salmon returning to the Nass River in 1997. Can. Man. Rep. Fish. Aquat. Sci. 2475: xi + 64 p.
44. Link, M.R. 1999. The 1996 fishwheel project on the Nass River, BC. Can. Manuscr. Rep. Fish. Aquat. Sci. 2476: xi + 92 p.
45. Link, M.R., and A.C. Gurak. 1997. The 1995 fishwheel project on the Nass River, BC. Can. Manuscr. Rep. Fish. Aquat. Sci. No. 2422: xi + 99 p.

46. Link, M.R., and K.K. English. 1997. The 1994 fishwheel project on the Nass River, BC. Can. Manuscr. Rep. Fish. Aquat. Sci. No. 2421: xi + 93 p.
47. Link, M.R., and K.K. English. 1996. The 1993 fishwheel project on the Nass River and an evaluation of fishwheels as an inseason management and stock assessment tool for the Nass River. Can. Tech. Rep. Fish. Aquat. Sci. 2130: xi +103 p.
48. Link, M.R., K.K. English, and R.C. Bocking. 1996. The 1992 fishwheel project on the Nass River and an evaluation of fishwheels as an inseason management and stock assessment tool for the Nass River. Can. Manuscr. Rep. Fish. Aquat. Sci. 2372: x + 82 p.
49. Koski, W.R., M.R. Link, and K.K. English. 1996. Distribution, timing, fate and numbers of chinook salmon returning to the Nass River watershed in 1992. Can. Tech. Rep. Fish. Aquat. Sci. 2129: xi +141p.
50. Nass, B.L., M.R. Link, and K.K. English. 1996. Determining new directions for research into the Nass River sockeye salmon stocks: a workshop held by the Nisga'a-Canada Joint Technical Committee, Unpublished report prepared by LGL Limited, Sidney, BC, for the Nisga'a Tribal Council, BC, ii + 20 p.
51. Link, M.R. 1995. The use of fishwheels for management and selective harvest of salmon on the Nass River, B.C. Conference Proceedings, Selective Harvest Workshop, Skeena Watershed Committee, April 22-23, 1995, Prince Rupert, BC. 6 p.
52. Link, M.R. 1995. The value of an improvement in the information used to manage a sockeye salmon (*Oncorhynchus nerka*) fishery: the Nass River gillnet and fishwheel test fishery programs. Master of Natural Resource Management Thesis. Rep. No. 164. Simon Fraser University, Burnaby, BC, 110 p.
53. Link, M.R., and G.F. Searing. 1994. 1994 Whiting River fish and wildlife reconnaissance trip. Unpubl. Rep. prepared by LGL Limited, Sidney, B.C., for the Taku River Tlingit First Nation, Atlin, BC. 27 p.

PRESENTATIONS

Western Alaska Interdisciplinary Science Conference. Dillingham, Alaska, March 2007. *Monitoring the Abundance of Salmon Smolts in Bristol Bay Rivers.*

Alaska Board of Fisheries, Dillingham, Alaska, December 7, 2006. *Optimal harvest policies for Bristol Bay sockeye salmon considering biological and economic returns.*

Community fisheries meetings, Dillingham and Naknek, Alaska. October 19-20, 2006. *The Kvichak Decline and is there anything we can do about it?* Joint presentation with Drs. D. Eggers, G. Ruggerone, and T. Markowitz.

Native Village of Eyak Fisheries Symposium, Cordova, Alaska, November 12-13, 2002. *Mark-recapture estimate of Chinook salmon escapement on the Copper River, 2002.*

Native Village of Eyak Fisheries Symposium, Cordova, Alaska, 29-30 November 2001. Two talks: *Feasibility of using fishwheels for long-term monitoring of chinook salmon escapement on the Copper River* and *Assessing methods to estimate inseason salmon abundance in the lower Copper River.*

7th Alaska Salmon Workshop. Anchorage, Alaska, February 21-23, 2001. *Ingredients of successful cooperative fisheries management: observations from the Nass River, British Columbia.*

International Symposium on Biotelemetry. Juneau, Alaska, May 9-14, 1999. *Post-release survival rates, migration behavior and population estimates from large-scale radio telemetry studies conducted on adult salmon and steelhead in four British Columbia rivers from 1992-1998.*

Information Transfer Meeting, Minerals Management Service, Anchorage, Alaska. January 19, 1999. *Mapping Cook Inlet tide rips using local knowledge and remote sensing.*

Skagit River Fisheries Enhancement Group, Washington Department of Fisheries and the Skagit Watershed Council, January 9, 1998. *The utility of fishwheels for selective harvest and stock assessment in Washington State rivers.*

Toward Sustainable Fisheries: Balancing conservation and use of salmon and steelhead in the Pacific Northwest, Victoria, BC, April 26-30, 1996. *Creating a sustainable stock assessment program by integrating assessment, research and harvesting*

Deputy Minister of Fisheries, Department of Fisheries and Oceans, Ottawa, Ont., December 1996. *The Nisga'a Fisheries Program.*

Reinventing Fisheries Management, Fisheries Centre Symposium, University of British Columbia, February 20-24, 1996, *A fisheries agreement with the Nisga'a: building a sustainable fishery and management system.*

Selective Harvest Workshop, Skeena Watershed Committee, April 22-23, 1995, Prince Rupert, BC, *The use of fishwheels for management and selective harvest of salmon on the Nass River, BC.*

Joint Management: Integrating traditional values with contemporary science, First Nations Fisheries Workshop, American Fisheries Society, January 16-18, 1994, Richmond, BC, *An evaluation of fishwheels as a management and selective harvest tool.*