



Species At Risk 2004: Pathways to Recovery

Program at a Glance

Time	Monday March 1	Tuesday March 2	Wednesday March 3	Thursday March 4	Friday March 5	Saturday March 6
All Day	Field Trips	Registration Exhibits Field Trips	Registration Exhibits	Registration Exhibits	Registration Exhibits Field Trips	Field Trips
Morning		Species At Risk Recovery Training Workshop	Welcome and Opening Address	Plenary 2	Concurrent Session E	
		Refreshment Break		Refreshment	Refreshment	
		Species At Risk Recovery Training Workshop	Plenary 1	Formal Poster Session 2	Concurrent Session F	
		Lunch				
Afternoon		Species At Risk Recovery Training Workshop	Concurrent Session A	Concurrent Session C	Plenary 3	
		Refreshment Break				
		Species At Risk Recovery Training Workshop	Concurrent Session B	Concurrent Session D		
Evening		Public Lecture Dr Richard Hebda “Surviving the Big Squeeze: Climate Change and The Future of Species at Risk”	Public Lecture Dr. Thomas Lovejoy “Teeming With Life”	Banquet Keynote Speaker Dr. Thomas Lovejoy “The Extinction Tsunami”		
		Reception Royal BC Museum		Entertainment Todd Butler		

Program Timetable

Monday March 1, 2004

Field Trips All Day

Tuesday March 2, 2004

Field Trips All Day

08:00 – 20:00 Registration

09:00 – 17:00 Species At Risk Recovery
Training Workshop

19:30 – 22:30 Reception Royal BC
Museum

20:00 – 21:00 Public Lecture

Wednesday March 3, 2004

07:00 – 17:00 Registration

08:00 – 09:45 Welcome and Opening
Addresses

9:45 - 10:15 *Refreshment Break*

10:15 – 12:15 Plenary 1

12:15 – 13:20 *Lunch*

13:20 – 15:00 Concurrent Session A

15:00 – 15:30 *Refreshment Break*

15:30 – 17:10 Concurrent Session B

17:10 – 19:00 Formal Poster Session 1
No Host Bar

20:00 – 21:00 Public Lecture

Thursday March 4, 2004

07:30 – 17:30 Registration

08:00 – 08:05 Announcements

08:05 – 10:05 Plenary 2

10:05 – 12:00 Formal Poster Session 2
Refreshment Break

12:00 – 13:20 *Lunch*

13:20 – 15:00 Concurrent Session C

15:00 – 15:30 *Refreshment Break*

15:30 – 17:10 Concurrent Session D

17:10 – 19:30 *No Host Bar*

19:30 - 22:30 Banquet

Friday March 5, 2004

08:00 – 12:00 Registration

08:00 – 08:05 Announcements

08:05 – 09:45 Concurrent Session E

09:45 – 10:15 *Refreshment Break*

10:15 – 11:55 Concurrent Session F

11:55 – 13:20 *Lunch*

13:20 – 15:20 Plenary 3

Saturday March 6, 2004

Field Trips All Day

Session Schedule

Tuesday, March 2, 2004

09:00 – 17:00 Species at Risk Recovery Training Workshop

Wednesday March 3, 2004

08:00 – 09:45 Welcome and Opening Addresses

10:15 – 12:15 Plenary 1 Recovery of Species and Ecosystems in Other Parts of the World

13:20 – 15:00 Concurrent Session A

<u>Room</u>	<u>Session</u>	<u>Page</u>
Salon A	<i>Comparing the Benefits of Single Species, Multi-Species and Ecosystem Approaches to Recovery 1</i>	
Salon B	<i>Implementing Recovery Plans 1</i>	
Sidney	<i>Collaboration, Stewardship and Partnerships in Recovery 1</i>	
Colwood	<i>Monitoring and Tracking Success 1</i>	
Saanich	<i>Ecology of Species and Ecosystems at Risk 1</i>	
Oak Bay 1	<i>Aboriginal Peoples, Local Communities, Wildlife Management Boards and Environmental NGOs in Recovery: Case Studies 1</i>	
Oak Bay 2	<i>Technological Advances in Species and Ecosystems Recovery 1</i>	
Esquimalt	<i>Re-Introducing Species at Risk 1</i>	
Lecture Theatre	<i>Identifying and Protecting Critical Habitat 1</i>	

15:30 – 17:10 Concurrent Session Session B

<u>Room</u>	<u>Session</u>	<u>Page</u>
Salon A	<i>Comparing the Benefits of Single Species, Multi-Species and Ecosystem Approaches to Recovery 2</i>	
Salon B	<i>Implementing Recovery Plans 2</i>	
Sidney	<i>Collaboration, Stewardship and Partnerships in Recovery 2</i>	
Colwood	<i>Monitoring and Tracking Success 2</i>	
Saanich	<i>Ecology of Species and Ecosystems at Risk 2</i>	
Oak Bay 1	<i>The Role of Advocacy in Conserving Species and Ecosystems at Risk 1</i>	
Oak Bay 2	<i>Setting Priorities: What to Recovery First? 1</i>	
Esquimalt	<i>Re-Introducing Species at Risk 2</i>	
Lecture Theatre	<i>Identifying and Protecting Critical Habitat 2</i>	

17:10 – 19:00 Formal Poster Session 1

Thursday March 4, 2004

08:00 – 10:05 Plenary 2 *The Legislative and Regulatory Framework of Species at Risk in Canada*

10:05 – 12:00 Formal Poster Session 2

13:20 – 15:00 Concurrent Session C

<u>Room</u>	<u>Session</u>	<u>Page</u>
Salon A	<i>Advances in Status and Ranking Systems: Lists, Bloody Lists 1</i>	
Salon B	<i>Identifying Impacts and Vulnerability of Species at Risk to Climate Change and the Challenges of Conservation and Social Adaptation 1</i>	
Sidney	<i>Challenges of Conserving Species at Risk in Protected Areas 1</i>	
Colwood	<i>Describing and Protecting Important Habitat 1</i>	
Saanich	<i>Ecology of Species and Ecosystems at Risk 3</i>	
Oak Bay 1	<i>Technological Advances in Species and Ecosystems Recovery 2</i>	
Oak Bay 2	<i>Compliance 1: Interpretation of Species At Risk Act to Enforcement Agencies</i>	
Esquimalt	<i>Conserving Small Populations 1</i>	
Lecture Theatre	<i>The Recovery Team Tool Box 1</i>	

15:30 – 17:10 Concurrent Session D

<u>Room</u>	<u>Session</u>	<u>Page</u>
Salon A	<i>Advances in Status and Ranking Systems: Lists, Bloody Lists 2</i>	
Salon B	<i>Identifying Impacts and Vulnerability of Species at Risk to Climate Change and the Challenges of Conservation and Social Adaptation 2</i>	
Sidney	<i>Advances in Taxonomy 1</i>	
Colwood	<i>Integrating Science and Traditional and Aboriginal Ecological Knowledge and Wisdom Into Our Understanding of Species and Ecosystems at Risk 1</i>	
Saanich	<i>Ecology of Species and Ecosystems at Risk 4</i>	
Oak Bay 2	<i>Compliance 2: Compliance Strategies</i>	
Esquimalt	<i>Conserving Small Populations 2</i>	
Lecture Theatre	<i>Recovery Efforts in North America 1</i>	

Friday March 5, 2004

08:05 – 09:45 Concurrent Session E

<u>Room</u>	<u>Session</u>	<u>Page</u>
Salon A	<i>Setting Recovery Goals and Objectives 1</i>	
Salon B	<i>Identifying Impacts and Vulnerability of Species at Risk to Climate Change and the Challenges of Conservation and Social Adaptation 3</i>	
Sidney Colwood	<i>Implementing Recovery - Science, Society and Economics 1 Aboriginal Peoples, Local Communities, Wildlife Management Boards and Environmental NGOs in Recovery: Case Studies 2</i>	
Saanich Oak Bay	<i>Public Outreach and Education 1 Industry and Regulations: Linking Regulatory Compliance, Stewardship and Innovation 1</i>	
Esquimalt Lecture Theatre	<i>Ecology of Species and Ecosystems at Risk 5 Recovery Efforts in North America 2</i>	

10:15 – 11:55 Concurrent Session F

<u>Room</u>	<u>Session</u>	<u>Page</u>
Salon A	<i>Biology and Impacts of Alien Species 1</i>	
Salon B	<i>Risk Assessment 1</i>	
Sidney Colwood	<i>Habitat Restoration as a Recovery Tool 1 Understanding Private Landowner Needs in Species and Ecosystem Recovery 1</i>	
Saanich Oak Bay	<i>Public Outreach and Education 2 The Role of Stewardship and Innovation in Regulatory Compliance - Industry Perspectives 1</i>	
Esquimalt Lecture Theatre	<i>Ecology of Species and Ecosystems at Risk 6 Recovery Efforts in North America 3</i>	

13:20 – 15:20 Plenary 3 *The Challenge Ahead – Recovery Within the Bigger Picture of Biodiversity Conservation*

Concurrent Session A – Wednesday March 3, 2004

	13:20 - 13:40	13:40 - 14:00	14:00 - 14:20	14:20 - 14:40	14:40 - 15:00
Salon A	Reader - Garry Oak Ecosystem Recovery.	Beauschesne - Recovery challenges for birds at risk in Garry Oak ecosystems of British Columbia.	Watson - Sea otters, abalone, kelp forests and snails: Should changes in life history strategies be considered in recovery strategies.	Smith - Moving from conserving only species to conserving habitats and ecosystems.	Proulx - Integrating the habitat needs of fine and coarse filter species in landscape planning.
Salon B	Neve - An evaluation of the Canadian recovery planning process for species at risk.	Schuler - Landscape level recovery efforts.	Austin - Grizzly bear recovery planning in the British Columbia portion of the North Cascades: Lessons learned and re-learned.	Wilson - The Marmot Recovery Foundation - A partnership model for species recovery.	Morgan - Species at risk and land management: A framework for integration.
Sidney	Bezner - South Okanagan Similkameen Conservation Program: A multi-partnered landscape approach to species at risk conservation.	Fuchs - Does stewardship work? Lesson from the Garry Oak Ecosystems Recovery Team.	GOERT - Birds, broom, bunnies and biplanes: Conserving a remnant population of Coastal Vesper Sparrows at the Nanaimo Airport, Vancouver Island.	Murray - The role of volunteers in a wetland habitat stewardship initiative.	Nelson - Success through stewardship: White Sturgeon monitoring and assessment in the lower Fraser River, BC.
Colwood	Clark - What we can learn from an assessment of monitoring efforts in endangered species recovery plans?		Nantel - Monitoring plants at risk for recovery in protected areas: What method for which species, at what frequency?	Metcalfe-Smith - Implementation of a monitoring program to track the recovery of endangered freshwater mussels in the Sydenham River, Ontario.	Kirkby - Tracking ecosystem loss on east Vancouver Island and the Gulf Islands: Recent research and application.
Saanich	Kinley - Influence of roads, cover type and forest harvesting on Mountain Caribou mortality risk	Szkorupa - Selection of local and landscape habitat attributes by Woodland Caribou in west central Alberta.	Jones - Habitat use of threatened Caribou at the transition zone from mountain to northern ecotype.	Manseau - Ecological history of Peary Caribou and Muskox on northern Ellesmere Island, ca. 4300 BP to present.	Ciarniello - Grizzly bears and forestry: Increased mortality leading to lower abundance in heavily harvested landscapes.
Oak Bay 1	Gates - The importance of engaging local peoples and stakeholders in recovery planning: Examples from western and northern Canada.	Hall - A model for First Nations engagement in recovery planning and implementation.	Couture - Community involvement in recovering Woodland Caribou populations: Yukon success stories.	Elijah - The role of First Nations in the Thames River Aquatic Ecosystem Recovery Plan.	Steward - The role of community in the recovery of marine species at risk: Pinto Abalone and Sea Otter on the west coast of Vancouver Island.
Oak Bay 2	Tischendorf - On the feasibility of quantitative population viability analysis in recovery planning: Efforts to bridge the gap between theory and practice.	Bloom - WILDSpace™: An expert system for decision support in multi-scale population and habitat scenarios.	Johnson - Resource selection functions: Mapping habitats and predicting population dynamics of sensitive Arctic wildlife.	O'Brien - Integrating movement cost with a spatial-graph based approach to assign the landscape connectivity of Woodland Caribou habitat.	Hamilton - Environmental effects on bison in Wood Buffalo national Park.
Esquimalt	Moehrenschrager - Endangered cranes, frogs, foxes and marmots: Scientific solutions to reintroduction challenges across taxa.	Lewis - The feasibility of reintroducing Fishers (<i>Martes pennanti</i>) in Washington.	Casimir - Breeding behaviour of captive Vancouver Island marmots (<i>Marmota vancouverensis</i>).	Lynch - Genetic and demographic management for the endangered San Clemente Loggerhead Shrike Recovery Program.	Westra - Behaviour and survival of captive-raised Pygmy Rabbits reintroduced in Idaho.
Lecture Theatre Note times for this session	13:20 – 13:45 Krofta - Critical habitat under the federal Endangered Species Act of 1973: Future directions.	13:45 – 14:10 Akçakaya - Viability as a criterion for critical habitat determination.	14:10 – 14:35 McKelvey - Critical habitat under SARA.	14:35 – 15:00 Jamieson - Critical habitat in the marine realm.	

Concurrent Session B – Wednesday March 3, 2004

	15:30 - 15:50	15:50 - 16:10	16:10 - 16:30	16:30 - 16:50	16:50 - 17:10
Salon A	Clark - Shortcomings of multi-species and ecosystem approaches to species recovery.		Panel Discussion		
Salon B	Gerrow - Maintaining the Newfoundland Marten in Gros Morne National Park of Canada: Overcoming challenges within and outside the park.	McAdam - Lessons from three white sturgeon (<i>Acipenser transmontanus</i>) recovery plans.	Adama - Rearing <i>Rana pipiens</i> for conservation.	Jewell - Recovery goes continental - How three countries overcome border barriers.	van Drimmelin - Forest practices and Marbled Murrelet recovery - The challenge of delay.
Sidney	Macquisten - Diversity and divergent thinking – Recreation resorts as wildlife refuges.	Barnet - Collaborative efforts to protect wetlands and estuaries.	Engelstoft - Stewardship initiatives for the Sharp-tailed Snake.	Querbach - Avoiding another tragedy in the commons: The potential for stewardship in the marine environment.	Woods - Recovery planning and activities for the Oregon Spotted Frog (<i>Rana pretiosa</i>) at Naval Radio Section Aldergrove.
Colwood	Krannitz - Surveys of endangered songbirds hampered by reduction of singing upon nesting.	Mandrak - Developing sampling protocols for fish species at risk in the Great Lakes Basin.	McClaren - Detection probability functions of rare species: The Northern Goshawk.	Harper - Radar as a tool for monitoring Marbled Murrelet populations at interior sites on northern Vancouver Island.	Haeussler - Whole-community or whole-ecosystem approaches to the assessment, maintenance and restoration of biodiversity.
Saanich	Burger - Effects of habitat fragmentation and forest edges on the distribution and abundance of predators of Marbled Murrelets and other forest birds on southwest Vancouver Island.	Doyle - Ecosystem influence on Goshawk (<i>Accipiter gentilis laingi</i> and <i>atricapillus</i>) ecology and management: Are specific ecosystem management practices required to successfully maintain healthy populations at a local or regional scale?	Dupuis - River continuum concept and management efforts: The case of the tailed frog.	Janz - Changing predator-prey relationships on Vancouver Island and effects on species at risk.	Pellat - Fire history of Garry Oak and associated ecosystems on federal lands.
Oak Bay 1	Mooers - How to better use (im)partial scientists to help shape public policy.	Gayton - Recovery in an era of indifference: Why does conservation have such a narrow public base?	Pickett - Backstage pass to SARA: How do I get on the list?	Gailus - Advocating for grizzly bear recovery in Alberta.	Page - Provincial species recovery planning, SARA and the Spotted Owl.
Oak Bay 2	Wood - Prioritization criteria for aquatic species at risk in Canada.	Bunnell - Allocating scarce resources in a species-rich environment: Guidelines from history and science.	Scudder - Rarity and richness hotspots in British Columbia.	Craig - Valuing marine wilderness: Representative marine protected areas and the perceived value of biodiversity restoration.	Austin - A spatial analysis of the status of terrestrial biodiversity in British Columbia.
Esquimalt	Lepitzki - Re-establishment of the endangered Banff Springs Snail into one of its formerly occupied habitats.	Lessard - Stalking wild transplanted abalone: Are they sticking around?	Poulin - Testing the feasibility of releasing captive-bred burrowing owls.	Newhouse - Translocation as a promising tool to aid recovery of Badger populations.	Kleiman - Criteria for evaluating reintroduction success..
Lecture Theatre Note times for this session	15:30 – 15:55 Lindsay - Delineating critical habitat under the new Species at Risk Act in Canada.	15:55 – 16:20 Prior - Preliminary guidance for the identification of critical habitat under the Species at Risk Act.	16:20 – 16:45 Thompson - Implementing critical habitat protection under SARA - Agreements and programs.	16:45 – 17:10 Discussion and Questions	

Concurrent Session C – Thursday March 4, 2004

	13:20 - 13:40	13:40 - 14:00	14:00 - 14:20	14:20 - 14:40	14:40 - 15:00
Salon A	Master - Setting conservation priorities and assessing risk of extinction.	Cannings - COSEWIC mandate: Assessment of species considered being at risk in Canada.	Quayle ¹ - Conservation status as a biodiversity indicator: What a decade of red-listing can tell us about biodiversity in BC.	Hatter - A conservation assessment of Mountain Caribou in British Columbia based on IUCN Red List criteria.	MacKenzie - Plant associations as ecosystems: Issues in application to at-risk status.
Salon B	Taylor - Climate trends in BC, Canada, and the world.	Fraser - Key indicators of climate change in BC and real and potential impacts on species at risk.	Hebda - Paleoecology, climate change and forecasting the future of species at risk.	Hellmann - Impacts of climate change on butterfly populations in western North America.	Harding - The future of Peary caribou (<i>Rangifer tarandus pearyi</i>) in a changing climate.
Sidney	Nudds - Management of 'at risk' species in protected areas in the age of ecological integrity: On the horns of a dilemma?	Eng - Do British Columbia's protected areas form a system? A multi-scale connectivity approach.	Stevens - Effectiveness of protected areas in conserving species and ecosystems at risk in British Columbia.	Fargey - Integrating a protected areas species-at-risk conservation needs into regional conservation planning: A case study.	Gurd - Mammal conservation in a non-equilibrium world: Conflicting results from land-bridge islands and the implications of Pleistocene extinctions.
Colwood	Guy - Development and implementation of the provincial Identified Wildlife Management Strategy in British Columbia, Canada.	Haynes - Determining critical marine foraging habitats of the threatened Marbled Murrelet (<i>Brachyramphus marmoratus</i>) in Pacific Rim National Park Reserve of Canada.	Krebs - Identification and conservation of wolverine reproductive den habitat in BC.	Manning - A habitat model for the threatened Queen Charlotte Goshawk on northern Vancouver Island.	Rosenfeld - Informational needs for assessing critical habitat.
Saanich	Aldridge - Habitat requirements and management needs for the endangered Sage-Grouse in Alberta.	Bishop - Population biology of the Yellow-breasted Chat (<i>Icteria virens auricollis</i>) in the south Okanagan, BC.	Craig - Habitat selection of Vancouver Island Water Shrews.	Sullivan - Population dynamics and habitat enhancement for two vulnerable small mammals in the Okanagan Valley: Western Harvest Mouse and Great Basin Pocket Mouse.	Burles - An update on the status and ecology of Keen's Long-eared Myotis (<i>Myotis keenii</i>).
Oak Bay 1	Wittmer - The importance of inverse density dependence in population viability analysis: Implications for the recovery of mountain caribou in British Columbia.	Klinkenberg - Spatial modelling and the identification of potential habitat.	Nantel - The impact of simplicity: A case study with the threatened <i>Cirsium scariosum</i> population of Mingan Islands National Park.	McNay - Building models for conservation of species at risk: Elements of forecasting habitat supply.	Robinson - Application of oceanographic modeling to the recovery of Northern Abalone in Pacific Rim National Park Reserve of Canada.
Oak Bay 2 Note times for this session	13:20 – 14:00 Hobby - Canada's Species at Risk Act: An enforcement perspective.	14:00 – 14:10 Webb - SARA and enforcement: A DFO perspective.	14:10 – 14:20 Morgan - Species at Risk Act compliance and enforcement: Provincial expectations.	14:20 – 14:30 Graham - TBA	14:30 – 15:00 Questions and Answers
Esquimalt	Plensky - Recovery of a Bighorn Sheep population in the south Okanagan following a disease die-off.	Fairbarns - Rarity among plants of Garry Oak meadows: Demographic bottlenecks and phenological constraints.	Gaydos - Addressing disease risks when recovering species at risk.	Haycock - Captive rearing, in-situ headstarting, and release of the endangered Oregon spotted frog (<i>Rana pretiosa</i> ; OSF) at Naval Radio Section Aldergrove and Seabird Island.	Ross - Killer whales at risk: Characterizing habitat quality for the most contaminated marine mammals in the world.
Lecture Theatre	Leech - Extension tools for recovery team program planning.	Hammond - An introduction to conservation covenants and their application to critical habitat protection.	Sparkes - Working relationships in ecosystem-based management.	Louis - First Nations Species at Risk Toolkit.	Black - The role of veterinary medicine in recovery planning.

Concurrent Session D – Thursday March 4, 2004

	15:30 - 15:50	15:50 - 16:10	16:10 - 16:30	16:30 - 16:50	16:50 - 17:10	
Salon A	Channell - The conservation value of peripheral populations: The supporting science.	Fraser - Risk listing and setting conservation priorities for species in British Columbia – a review of current practices.	Bunnell - Plagued by a plethora of peripherals: Refining guidelines for peripheral taxa.	Pojar - Marginalia or merit: Vascular plants of British Columbia that really matter.	Lea - Ecosystems at risk – Forgotten pathways to recovery.	
Salon B	Spittlehouse - Adaptation to climate change in forest management.	Scott - Is climate change the achilles heel of protected area planning in Canada?	Malcolm - Species extinctions in biodiversity hotspots under scenarios of global climate change.	Myers - Invasive plants: their impacts and control in changing environments.	Ward - BC's Keogh Steelhead as an indicator and example of the challenges of climate change and species at risk.	
Sidney	Green - Designatable units for species status assessment and protection.	Ciruna - Delineation of Pacific salmon conservation units for Canada.	Parkinson - Conservation units for steelhead trout in BC.	Nagorsen - Canada's endemic mammals at risk: Recent taxonomic advances and priorities for conservation.	Wheeler - The biogeography of rarity: Rare vascular plants in southwestern British Columbia.	
Colwood	Goulet - Where are we now? History, perspectives, and proposed procedures for including knowledge from aboriginal sources in species status assessment procedures.	Panel Discussion				
Saanich	Cassady St. Clair - Breeding success of Tufted Puffins in BC reflects ocean temperatures.	Ford - Killer Whales at risk: Assessing the conservation status of distinct, sympatric ecotypes of <i>Orcinus orca</i> in British Columbia.	Shelden - Historic and current habitat use by North Pacific Right Whales, <i>Eubalaena japonica</i> , in the Bering Sea and Gulf of Alaska.	Tomascik - Distribution and abundance of Northern Abalone (<i>Haliotis kamschatkana</i>) in relation to habitat and predators in Pacific Rim National Park Reserve of Canada.	Holmes - Linking traditional ecological knowledge with contemporary knowledge to conserve Northern Abalone and Sea Otter.	
Oak Bay 1	Covenant Workshop					
Oak Bay 2 Note times for this session	15:30 – 15:45 Thompson - A look at public requested investigations under CEPA: The pro's and cons.	15:45 – 16:00 Unites States Bureau of Land Management - TBA	16:00 – 16:15 Peterson - A look at endangered species investigations in Washington State.	16:15 – 16:30 Lafleur - The history behind the Species at Risk Act and the challenges for enforcement.	16:30 – 16:45 Williams - TBA	16:45 – 17:10 Questions and Answers
Esquimalt	MacHutchon - Biological challenges of augmenting small Grizzly Bear populations.	McAdie - History and current status of the Vancouver Island Marmot (<i>Marmota vancouverensis</i>) captive breeding program.	Oakley - Captive rearing of caribou: A novel approach to enhancing recruitment in a depressed population of woodland caribou.	Temple - The role of captive breeding and release in recovery - The case of the Eastern Loggerhead Shrike.	Wilson - Genetic management of a small and recently salvaged herd of Wood Bison.	
Lecture Theatre	Lockhart - Blackfooted ferret recovery in three countries.	Adams - Canada's Badger (<i>Taxidea taxus jeffersonii</i>) recovery team: Coordinating research and management.	Gates - Wood Bison Recovery.	Taylor - Thames River Aquatic Ecosystem Recovery.	Darling - Recovery of Purple Martin in British Columbia: More than a nest box program.	

Concurrent Session E – Friday March 5, 2004

	08:05 – 08:25	08:25 – 08:45	08:45 – 09:05	09:05 – 09:25	09:25 – 09:45
Salon A	Elphick - Correlates of population recovery goals in endangered birds in the United States.	Jolicoeur - The Quebec approach to drafting conservation plans for rare plants.	Dyer - Setting conservation targets in the South Okanagan – Similkameen.	Salafsky - Setting goals and objectives in the context of the adaptive management cycle.	Matthews - Applying a wildlife management planning framework to species at risk for results-based recovery planning.
Salon B	Hyatt - Impacts of climate variation and change events on several threatened or vulnerable salmon populations in southern British Columbia: Implication for conservation and restoration planning.	Mandrak - Potential impacts of climate change on the distributions of freshwater fish species at risk in Canada.	Irvine - Endangered salmon in Canada.	Welch - Stock-specific impacts of marine climate change on BC salmon.	Johannes - Adapting to climate variation and change: Important issues and lessons to be learned for species at risk across Canada.
Sidney	Vesely - How many eggs should we put in one basket? – Economic input into conservation management.	Parkinson - The biology and economics of overharvest: An example from fisheries.	Rudd - Socioeconomic assessment and monitoring of aquatic species at risk in the Canadian Maritimes.	McComb - British Columbia versus Canadian Forest Products: Estimating non-market damage to an ecologically sensitive area.	Rudd - The economics of stewardship: Implications for investing in species at risk recovery.
Colwood	Pissot - Predators, ranchers, government, and wildlife advocates: A role for ENGOs in an effective conservation framework.	TBA	Couture - Yukon Wood Bison recovery program: Challenges from the community perspective.	Fransden - Developing a trans-boundary management strategy for a free-ranging Plains Bison herd.	TBA
Saanich	Currie - Public education - An important and relevant tool for species recovery.	Thomson - Building an effective endangered species education program: Process, content, and benefits to conservation.	Upton - Public education and involvement in species recovery.	Caskey - The effectiveness of the outreach program for the Sensitive Ecosystems Inventory of east Vancouver Island and the Gulf Islands.	Branchaud - Drink a beer, save a fish.
Oak Bay	Morgantini - The challenge of managing woodland caribou habitat in Alberta: A forest management perspective.	McLoughlin - Identifying industrial land use targets for boreal ecotype Woodland Caribou range to determine allowable levels of cumulative effects for a threatened species.	Cooper - Does the wind power industry threaten Marbled Murrelets or do Marbled Murrelets threaten the wind power industry?	Deal - Marbled Murrelet nesting habitat conservation strategy for Tree Farm Licence 37, north central Vancouver Island.	Jacobs - Recovering the endangered Short-tailed Albatross: Interplay of international, inter-agency, and industry interests.
Esquimalt	Adama - The status of Northern Leopard Frogs (<i>Rana pipiens</i>) in British Columbia.	Heron - Terrestrial invertebrates at risk in British Columbia: Overview and update.	Ramsay - Determining the status of British Columbia's dragonflies - getting it right.	St. Clair - Rubber boas at Radium Hot Springs.	McIntosh - Rare bryophytes in British Columbia: Inventory and conservation issues.
Lecture Theatre	Thomas - Recovery efforts for Piping Plover in Prince Edward Island National Park of Canada.	Paradis - Conservation of the Wood Turtle in the Shawinigan River watershed.	Chapple - Two years of strategic salmon recovery: The experience of Pacific Salmon Foundation.	Venton - Interjurisdictional challenges to conservation of the southern resident Killer Whales.	Dextrase - Recovery planning for species at risk in the Sydenham River, Ontario – A watershed-based ecosystem approach.

Concurrent Session F – Friday March 5, 2004

	10:15 – 10:25	10:25 – 10:45	10:45 – 11:05	11:05 – 11:25	11:25 – 11:45
Salon A	Gayton - Plant species origin and biodiversity in grazed grasslands of British Columbia's southern interior.	Govindarajulu - Recent rapid range expansion and impacts of the introduced American bullfrog (<i>Rana catesbeiana</i>) in British Columbia: Is eradication or even control feasible?	Kaiser - Rat extermination on Langara Island: 10 years after.	Prasad - Ecology, biology and control of some exotic-invasive weeds on federal lands in British Columbia, Canada.	Hallstrom - Effect of habitat loss and invasion by Scotch Broom (<i>Cytisus scoparius</i>) on rare butterflies of Garry Oak meadows.
Salon B	Arcese - Monitoring for population trend and cause of population change in Marbled Murrelets.	Nishi - Risk assessment as a tool to evaluate health status of a salvaged herd of captive Wood Bison.	Quilty - Assessing ecosystem risk in streams using high frequency water quality data.	Richardson - Population ecology of the Coastal Giant Salamander: A preliminary demographic model and viability analysis.	Steventon - Assessment of risk to Marbled Murrelets (<i>Brachyramphus marmoratus</i>) of forest policy alternatives in British Columbia.
Sidney	Shepherdson - Working to restore Oregon Silverspot Butterfly (<i>Speyeria zerene hippolyta</i>) populations on the Pacific Northwest coast: Captive rearing and release combined with habitat restoration and monitoring.	MacDougall - Does the type of disturbance matter for the restoration of fire-suppressed Garry Oak savanna?	Pearson - Using recovery science and recovery action in mutual support: Habitat restoration for the Salish Sucker (<i>Catostomus sp.</i>).	Ovaska - Habitat restoration for the endangered Sharp-tailed Snake.	Sellentin - Wetland restoration in the Comox Valley.
Colwood	Black - The South Okanagan-Similkameen Conservation Program's partnership-based approach to species at risk recovery and stewardship.	Merkens - Partners in stewardship: An example of using incentives for agricultural wildlife habitat enhancement.	Arnold - Unusual bedfellows: Science, commerce, and advocacy working together to conserve Mountain Caribou habitat.	Callaway - Working with species at risk ... Working with people?	Nelson - Stakeholder involvement in species at risk recovery planning: A multiple case study in southern Ontario.
Saanich	Austin - Survival of glass houses in a war zone.	Wheeliker - Educating about species at risk in Alberta.	Junck - Battling aliens and saving SARs: A case study of outreach that works from the Garry Oak Ecosystems Recovery Team.	Morgan - Promoting knowledge of grizzly bears among recovery zone residents in Washington's North Cascades.	Gaulin - Species at risk invade your living room.
Oak Bay	Panel Discussion				
Esquimalt	Bryant - Hyperpredation, behavior and landscape change: Understanding the proximate and ultimate causes of decline in Vancouver Island marmots.	Irwin - Habitat relationships of Northern Spotted Owls.	Packham - Badger ecology in the Cariboo region of British Columbia, Canada.	Weir - Life on a highway: Sources of mortality in an endangered British Columbia badger population.	Squires - Lynx ecology in western Montana.
Lecture Theatre	Spence - Upper Columbia White Sturgeon recovery initiative – planning and recovery.	MacKintosh - The Burrowing Owl story – Science and stewardship in action.	Thomas - Stewardship and science: A case study of the Piping Plover and Harlequin Duck recovery in Newfoundland and Labrador.	Nichol - Recovery of Sea Otters in British Columbia.	Brewin - Bull trout management and recovery in Alberta.

Wednesday March 3, 2004

Welcome and Opening Addresses

Session Chair: **Nancy Wilkin, Assistant Deputy Minister, BC Ministry of Water, Land and Air Protection**

Venue: **Salon A-B**

- 08:00 – 08:15 **Welcome and Announcements**
Species At Risk 2004 Organizing Committee
- 08:15 – 08:30 **Welcome**
Songhees Nation (To be confirmed)
- 08:30 – 08:45 **The Honourable David Anderson P.C., M.P.**
The Minister of Environment
- 08:45 – 09:00 **Bill Barisoff (Hon) MLA (To be confirmed)**
Minister of Water, Land and Air Protection
- 09:00 – 09:15 **Byron Louis**
Okanagan Nation Alliance
- 09:15 – 09:45 **Holistic health care for biodiversity: From preventive medicine to emergency wards.**
David Boyd University of Victoria
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Plenary 1 10:15 – 12:15

Session Title: *Recovery of Species and Ecosystems in Other Parts of the World*

Session Chair: **Eric Lofroth, BC Ministry of Water, Land and Air Protection**

Venue: **Salon A-B**

- 10:15 – 10:45 **From Africa to North America: Lessons in saving species.**
Bill Weber Wildlife Conservation Society
- 10:45 – 11:15 **Conservation in the other 99% of the biosphere: The sea.**
Dr. Elliot Norse Marine Conservation Biology Institute
- 11:15 – 11:45 **From offshore islands to mainland islands: Conserving and restoring indigenous biodiversity in New Zealand**
Dr. Philip Seddon¹ and **Richard Maloney²**
¹University of Otago, New Zealand
²Department of Conservation, New Zealand
- 11:45 – 12:15 **Wildlife conservation strategies and management in India: An overview.**
Dr. Swarndeeep S. Hundal Punjab Agricultural University
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Concurrent Session A 13:20 – 15:00

Session Title: ***Comparing the Benefits of Single Species, Multi-Species and Ecosystem Approaches to Recovery 1***

Session Chair: **Pippa Shepherd, Parks Canada**

Venue: **Salon A**

13:20 – 13:40 **Garry Oak ecosystems recovery.**

Brian Reader Parks Canada and Garry Oak Ecosystems Recovery Team

13:40 – 14:00 **Recovery challenges for birds at risk in Garry Oak ecosystems of British Columbia.**

Suzanne Beauchesne Western Wildlife Research

14:00 – 14:20 **Sea otters, abalone, kelp forests and snails: Should changes in life history strategies be considered in recovery strategies?**

Jane Watson¹, Leah Saville² and Gina Lemieux³

¹Malaspina University-College and Marine Mammal Unit, University of British Columbia

²Victoria, BC

³Golder Associates

14:20 – 14:40 **Moving from conserving only species to conserving habitats and ecosystems.**

James N. M. Smith Department of Zoology and Centre for Biodiversity Research, University of British Columbia

14:40 – 15:00 **Integrating the habitat needs of fine and coarse filter species in landscape planning.**

Gilbert Proulx Alpha Wildlife Research & Management Ltd

Session Title: ***Implementing Recovery Plans 1***

Session Chair: **Ian Adams, Corvus Communications and BC Badger Recovery Team**

Venue: **Salon B**

13:20 – 13:40 **An evaluation of the Canadian recovery planning process for species at risk.**

Silke Neve¹ and Paul Wood²

¹Environment Canada

²Department of Forestry, University of British Columbia

13:40 – 14:00 **Landscape level recovery efforts.**

Carol Schuler U.S. Geological Survey, Forest and Rangeland Ecosystem Science Center

14:00 – 14:20 **Grizzly bear recovery planning in the British Columbia portion of the North Cascades: Lessons learned and re-learned.**

Matthew A. Austin BC Ministry of Water, Land and Air Protection

- 14:20 – 14:40 **The Marmot Recovery Foundation - A partnership model for species recovery.**
Viki Wilson¹ and Linda Coady^{1,2}
¹Marmot Recovery Foundation
²World Wildlife Fund Canada
- 14:40 – 15:00 **Species at risk and land management: A framework for integration.**
Don Morgan¹ and Andrew Fall²
¹Research Branch, BC Ministry of Forests
²School of Resource and Environmental Management, Simon Fraser University
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Session Title: *Collaboration, Stewardship and Partnerships in Recovery 1*
Session Chair: **Sylvia von Schuckmann, BC Ministry of Water, Land and Air Protection**
Venue: **Sidney**

- 13:20 – 13:40 **South Okanagan Similkameen Conservation Program: A multi-partnered, landscape approach to species at risk conservation.**
Andy Bezner^{1,2}, Michael Dunn³, Howie Richardson¹, Orville Dyer⁴, Rob Hawes⁵ and Trish Hayes³
¹Okanagan University College
²Partners In Flight
³Canadian Wildlife Service, Environment Canada
⁴BC Ministry of Water, Land and Air Protection
⁵South Okanagan Similkameen Conservation Program
- 13:40 – 14:00 **Does stewardship work? Lessons from the Garry Oak Ecosystems Recovery Team.**
Marilyn A. Fuchs Garry Oak Ecosystems Recovery Team
- 14:00 – 14:20 **Birds, broom, bunnies and biplanes: Conserving a remnant population of Coastal Vesper Sparrows at the Nanaimo Airport, Vancouver Island.**
GOERT Vertebrate-at-Risk Recovery Implementation Group Garry Oak Ecosystems Recovery Team
- 14:20 – 14:40 **The role of volunteers in a wetland habitat stewardship initiative.**
Tasha Murray Vancouver Aquarium Marine Science Centre
- 14:40 – 15:00 **Success through stewardship: White Sturgeon monitoring and assessment in the lower Fraser River, BC.**
Troy C. Nelson^{1,2}, Marvin L. Rosenau^{1,3}, and Rick Hansen¹
¹Fraser River Sturgeon Conservation Society
²LGL Limited
³BC Ministry of Water, Land and Air Protection
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Session Title: *Monitoring and Tracking Success 1*
Session Chair: **Greg Jones, BC Ministry of Water, Land and Air Protection**
Venue: **Colwood**

- 13:20 – 14:00 **An assessment of monitoring efforts in endangered species recovery plans.**
Steven P. Campbell¹ J. Alan Clark², Lisa H. Crampton³, Anne D. Guerry¹, Leila T. Hatch⁴, Parvieux R. Hosseini⁵, Joshua J. Lawler¹ and Raymond J. O'Connor¹
¹University of Maine
²University of Washington
³University of Nevada
⁴Cornell University
⁵University of California, Santa Barbara
- 14:00 – 14:20 **Monitoring plants at risk for recovery in protected areas: What method for which species, at what frequency?**
Patrick Nantel Species At Risk Program, Ecological Integrity Branch, Parks Canada
- 14:20 – 14:40 **Implementation of a monitoring program to track the recovery of endangered freshwater mussels in the Sydenham River, Ontario.**
Janice L. Metcalfe-Smith, Daryl J. McGoldrick and David T. Zanatta
National Water Research Institute, Environment Canada
- 14:40 – 15:00 **Tracking ecosystem loss on east Vancouver Island and the Gulf Islands: Recent research and application.**
Jan Kirkby Canadian Wildlife Service, Environment Canada
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Session Title: *Ecology of Species and Ecosystems at Risk 1*

Session Chair: **Ian Hatter**, BC Ministry of Water, Land and Air Protection

Venue: **Saanich**

- 13:20 – 13:40 **Influence of roads, cover type and forest harvesting on Mountain Caribou mortality risk, Purcell Mountains, British Columbia.**
Trevor A. Kinley Sylvan Consulting Ltd
- 13:40 – 14:00 **Selection of local and landscape habitat attributes by Woodland Caribou in west central Alberta – A necessary step towards species recovery.**
Tara D. Szkorupa¹, Fiona K. A. Schmiegelow² and Dave P. Hervieux¹
¹Fish and Wildlife Division, Alberta Sustainable Resources Development
²Department of Renewable Resources, University of Alberta
- 14:00 – 14:20 **Habitat use of threatened Caribou at the transition zone from mountain to northern ecotype.**
E. Jones¹, M. Gillingham¹, D. Heard², D. Seip³ and G. Watts²
¹University of Northern B.C
²BC Ministry of Water, Land and Air Protection
³BC Ministry of Forests
- 14:20 – 14:40 **Ecological history of Peary Caribou and Muskox on northern Ellesmere Island, ca. 4300 BP to present.**
M. Manseau¹, L. Dick², N. Lyons¹, St-Pierre³ and J. Wood¹

¹Western Canada Service Centre, Parks Canada, Winnipeg

²Western Canada Service Centre, Parks Canada, Vancouver

³School of Resource and Environmental Management, Simon Fraser University

14:40 – 15:00 **Grizzly Bears and forestry: Increased mortality leading to lower abundance in heavily harvested landscapes.**

Lana M. Ciarniello¹, Mark S. Boyce¹, Douglas C. Heard², and Dale R. Seip³

¹University of Alberta, Department of Biological Sciences

²BC Ministry of Water, Land and Air Protection

³BC Ministry of Forests

Session Title: *Aboriginal Peoples, Local Communities, Wildlife Management Boards and Environmental NGOs in Recovery: Case Studies 1*

Session Chair: **Thomas Jung, Yukon Department of Environment**

Venue: **Oak Bay 1**

13:20 – 13:40 **Title TBA (The importance of engaging local peoples and stakeholders in recovery planning: Examples from western and northern Canada.)**

Cormack Gates University of Calgary

13:40 – 14:00 **A model for First Nations engagement in recovery planning and implementation.**

Ron Hall Osoyoos Indian Band

14:00 – 14:20 **Community involvement in recovering Woodland Caribou populations: Yukon success stories.**

Gerry Couture, Art Johns and Kelly Hayes

Yukon Fish and Wildlife Management Board

14:20 – 14:40 **The role of First Nations in the Thames River Aquatic Ecosystem Recovery Plan.**

R. Elijah and C. Nicks

Upper Thames River Conservation Authority

14:40 – 15:00 **The role of community in the recovery of marine species at risk: Pinto Abalone and Sea Otter on the west coast of Vancouver Island.**

E. Anne Stewart Bamfield Marine Sciences Centre

Session Title: *Technological Advances in Species and Ecosystems Recovery 1*

Session Chair: **Dave Cunningham, Canadian Wildlife Service**

Venue: **Oak Bay 2**

13:20 – 13:40 **On the feasibility of quantitative population viability analysis in recovery planning: Efforts to bridge the gap between theory and practice.**

Lutz Tischendorf¹ and Kathryn Lindsay²

¹ELUTIS Modelling & Consulting Inc.

- ²National Wildlife Research Centre, Canadian Wildlife Service,
Environment Canada
- 13:40 – 14:00 **WILDSPACE™: An expert system for decision support in multi-scale population and habitat scenarios.**
R. Bloom¹, R. Russell¹, I. Wong², P. Fong², A. Darwin¹ and D. McNicol¹
¹Canadian Wildlife Service (Ontario Region), Environment Canada,
²Aquatic Ecosystem Impacts Research Branch, National Water Research Institute, Environment Canada
- 14:00 – 14:20 **Resource selection functions: Mapping habitats and predicting population dynamics of sensitive Arctic wildlife.**
Chris J. Johnson¹, Mark S. Boyce², Ray L. Case³, H. Dean Cluff³, Robert J. Gau³, Anne Gunn³ and Robert Mulders³
¹Ecosystem Science and Management Program, University of Northern British Columbia
²Department of Biological Sciences, University of Alberta
³Department of Resources, Wildlife and Economic Development, Government of Northwest Territories
- 14:20 – 14:40 **Integrating movement cost with a spatial-graph based approach to assessing the landscape connectivity of Woodland Caribou habitat.**
Dan O'Brien, Micheline Manseau, Andrew Fall and Marie-Josée Fortin
Cortex Consultants Inc.
- 14:40 – 15:00 **Environmental effects on bison in Wood Buffalo National Park.**
Stephen Hamilton¹, Evelyn Merrill¹ and John Wilmshurst²
¹Department of Biological Sciences, University of Alberta
²Western Canada Service Centre, Parks Canada
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Session Title: ***Re-Introducing Species at Risk 1***
Session Chair: **Axel Moehrenschrager, Calgary Zoo**
Venue: **Esquimalt**

- 13:20 – 13:40 **Endangered cranes, frogs, foxes, and marmots: Scientific solutions to reintroduction challenges across taxa.**
Axel Moehrenschrager Centre for Conservation Research, Calgary
Zoological Society
- 13:40 – 14:00 **The feasibility of reintroducing Fishers (*Martes pennanti*) in Washington.**
Jeffery C. Lewis¹, Gerald E. Hayes¹, Harriet L. Allen¹, Mark R. Skatrud²,
and Richard D. Weir³
¹Washington Department of Fish and Wildlife
²Northwest Ecosystem Alliance
³Artemis Wildlife Consultants
- 14:00 – 14:20 **Breeding behaviour of captive Vancouver Island marmots (*Marmota vancouverensis*).**
D.L. Casimir^{1,2}, A. Moehrenschrager^{1,2} and R.M.R. Barclay²
¹Centre for Conservation Research, Calgary Zoological Society

- ²Department of Biological Sciences, University of Calgary
14:20 – 14:40 **Genetic and demographic management for the endangered San Clemente Loggerhead Shrike Recovery Program.**
Colleen Lynch American Zoo and Aquarium Association, Population Management Centre and Lincoln Park Zoo, Department of Conservation and Science
14:40 – 15:00 **Behaviour and survival of captive-raised Pygmy Rabbits reintroduced in Idaho.**
R. Westra, R. Sayler, and L. Shipley Department of Natural Resource Sciences, Washington State University
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Session Title: *Identifying and Protecting Critical Habitat 1*
Session Chair: **Kent Prior**, Canadian Wildlife Service
Venue: **Lecture Theatre**

- 13:20 – 13:45 **Critical habitat under the federal Endangered Species Act of 1973: Future directions.**
Douglas Krofta US Fish and Wildlife Service
13:45 – 14:10 **Viability as a criterion for critical habitat determination.**
H. Resit Akçakaya Applied Biomathematics
14:10 – 14:35 **Critical habitat under SARA.**
Rick McKelvey Canadian Wildlife Service
14:35 – 15:00 **Critical habitat in the marine realm.**
Glen Jamieson Fisheries and Oceans Canada
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Concurrent Session B 15:30 – 17:10

Session Title: *Comparing the Benefits of Single Species, Multi-Species and Ecosystem Approaches to Recovery 2*
Session Chair: **Pippa Shepherd**, Parks Canada
Venue: **Salon A**

- 15:30 – 16:10 **Shortcomings of multi-species and ecosystem approaches to species recovery.**
Alan J. Clark¹ and Erik Harvey²
¹Department of Biology, University of Washington
²Department of Biology, Arizona State University
16:10 – 17:10 **Panel Discussion**
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Session Title: *Implementing Recovery Plans 2*
Session Chair: **Lisa Twolan**, Environment Canada
Venue: **Salon B**

- 15:30 – 15:50 **Maintaining the Newfoundland Marten in Gros Morne National Park of Canada: Overcoming challenges within and outside the park.**
Shawn Gerrow and Stephen Flemming Gros Morne National Park of Canada
- 15:50 – 16:10 **Lessons from three white sturgeon (*Acipenser transmontanus*) recovery plans.**
Steven McAdam BC Ministry of Water, Land and Air Protection
- 16:10 – 16:30 **Rearing *Rana pipiens* for conservation.**
Doug Adama¹ and Kris Kendell²
¹Adama Wildlife and Columbia Basin Fish and Wildlife Compensation Program
²Alberta Conservation Association
- 16:30 – 16:50 **Recovery goes continental - How three countries overcome border barriers.**
Susan D. Jewell¹ and Ken Corcoran²
¹Endangered Species Program, U.S. Fish and Wildlife Service
²Canadian Wildlife Service
- 16:50 – 17:10 **Forest practices and Marbled Murrelet recovery – The challenge of delay.**
Ben van Drimmelen Forest Practices Board of BC
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Session Title: *Collaboration, Stewardship and Partnerships in Recovery 2*

Session Chair: **Jan Garnett**, Nature Conservancy of Canada

Venue: **Sidney**

- 15:30 – 15:50 **Diversity and divergent thinking – Recreation resorts as wildlife refuges.**
K. Macquisten Grouse Mountain Refuge for Endangered Wildlife
- 15:50 – 16:10 **Collaborative efforts to protect wetlands and estuaries.**
Ian Barnett Ducks Limited and Wetland Working Group
- 16:10 – 16:30 **Stewardship initiatives for the Sharp-tailed Snake.**
Christian Engelstoff and Kristiina Ovaska Alula Biological Consulting
- 16:30 – 16:50 **Avoiding another tragedy in the commons: The potential for stewardship in the marine environment.**
K. Querbach¹ and C. Hood²
¹Species at Risk Co-ordination Office, Fisheries and Oceans Canada, Bedford Institute of Oceanography, Nova Scotia
²Species at Risk Co-ordination Office, Fisheries and Oceans Canada, Newfoundland
- 16:50 – 17:10 **Recovery planning and activities for the Oregon Spotted Frog (*Rana pretiosa*) at Naval Radio Section Aldergrove.**
Robert A. Woods¹, Russ D. Haycock² and Stephanie Blouin³
¹National Defence Headquarters
²Canadian Oregon Spotted Frog Recovery Team

³Canadian Forces Base Esquimalt

Session Title: ***Monitoring and Tracking Success 2***

Session Chair: **Risa Smith, Environment Canada**

Venue: **Colwood**

15:30 – 15:50 **Surveys of endangered songbirds hampered by reduction of singing upon nesting.**

Pam G. Krannitz¹ and C. Stuik²

¹Canadian Wildlife Service, Environment Canada

²University of British Columbia.

15:50 – 16:10 **Developing sampling protocols for fish species at risk in the Great Lakes Basin.**

Nicholas E. Mandrak, Jason Barnucz, Mark Poos, and Heather Surette
Great Lakes Laboratory for Fisheries and Aquatic Sciences, Fisheries and Oceans Canada and Department of Zoology, University of Guelph

16:10 – 16:30 **Detection probability functions of rare species: The Northern Goshawk.**

Erica L. McClaren BC Ministry of Water, Land and Air Protection

16:30 – 16:50 **Radar as a tool for monitoring Marbled Murrelet populations at interior sites on northern Vancouver Island.**

W.L. Harper¹, J. Deal² and B.K. Schroeder³

¹Osiris Wildlife Consulting

²Canadian Forest Products Ltd, Coastal Operations

³Bernard K. Schroeder Consulting

16:50 – 17:10 **Whole-community or whole-ecosystem approaches to the assessment, maintenance and restoration of biodiversity.**

Sybille Haeussler^{1,2} and Yves Bergeron¹

¹Université du Québec à Montréal

²Skeena Forestry Consultants

Session Title: ***Ecology of Species and Ecosystems at Risk 2***

Session Chair: **Andy Stewart, BC Conservation Data Centre**

Venue: **Saanich**

15:30 – 15:50 **Effects of habitat fragmentation and forest edges on the distribution and abundance of predators of Marbled Murrelets and other forest birds on southwest Vancouver Island.**

A. E. Burger, M. M. Masselink, A. R. Tillmanns, A. Szabo, M. Farnholtz, and M. J. Krkosek Department of Biology, University of Victoria

15:50 – 16:10 **Ecosystem influence on Goshawk (*Accipiter gentilis laingi* and *atricapillus*) ecology and management: Are specific ecosystem management practices required to successfully maintain healthy populations at a local or regional scale?**

F. I. Doyle Wildlife Dynamics Consulting

- 16:10 – 16:30 **River continuum concept and management efforts: The case of the tailed frog.**
L. Dupuis and P. Friele Ascaphus Consulting
- 16:30 – 16:50 **Changing predator-prey relationships on Vancouver Island and effects on species at risk.**
D. Janz, T.A. Chatwin, K. Brunt, D.D. Doyle, E.L. McClaren and K. Morrison, Fish and Wildlife Science and Allocation, BC Ministry of Water, Land and Air Protection
- 16:50 – 17:10 **Fire history of Garry Oak and associated ecosystems on federal lands.**
Marlow G. Pellatt^{1,2}, Ze'ev Gedalof^{3,4}, and Dan Smith³
¹ Western Canada Service Centre, Parks Canada
²School of Resource and Environmental Management, Simon Fraser University
³Department of Geography, University of Victoria
⁴Department of Geography, University of Guelph
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Session Title: *The Role of Advocacy in Conserving Species and Ecosystems at Risk 1*
Session Chair: **Pamela Zevit, The Como Watershed Group**
Venue: **Oak Bay 1**

- 15:30 – 15:50 **How to better use (im)partial scientists to help shape public policy.**
Arne Mooers Simon Fraser University
- 15:50 – 16:10 **Recovery in an era of indifference: Why does conservation have such a narrow public base?**
Don Gayton FORREX
- 16:10 – 16:30 **Backstage pass to SARA: How do I get on the list?**
Karolyne Pickett Fisheries and Oceans Canada
- 16:30 – 16:50 **Advocating for grizzly bear recovery in Alberta.**
Jeff Gailus Yellowstone to Yukon Conservation Initiative and Grizzly Bear Alliance
- 16:50 – 17:10 **Provincial species recovery planning, SARA and the Spotted Owl.**
Devon Page Sierra Legal Defense Fund
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Session Title: *Setting Priorities: What to Recover First? 1*
Session Chair: **Doug Hyde, Environment Canada**
Venue: **Oak Bay 2**

- 15:30 – 15:50 **Prioritization criteria for aquatic species at risk in Canada.**
Chris Wood Department of Fisheries and Oceans
- 15:50 – 16:10 **Allocating scarce resources in a species-rich environment: Guidelines from history and science.**
F.L. Bunnell¹, R. W Campbell², K.A. Squires¹
¹Forest Sciences Department, University of British Columbia
²Westcam Consulting Services

- 16:10 – 16:30 **Rarity and richness hotspots in British Columbia.**
G.G.E. Scudder Department of Zoology and Centre for Biodiversity
Research, University of British Columbia
- 16:30 – 16:50 **Valuing marine wilderness: Representative marine protected areas
and the perceived value of biodiversity restoration.**
Robin K. Craig Indiana University School of Law
- 16:50 – 17:10 **A spatial analysis of the status of terrestrial biodiversity in British
Columbia.**
Matt Austin¹ and R. Flemming²
¹BC Ministry of Water, Land and Air Protection
²Clover Point Cartographics Ltd
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Session Title: *Re-Introducing Species at Risk 2*
Session Chair: **Axel Moehrenschrager, Calgary Zoo**
Venue: **Esquimalt**

- 15:30 – 15:50 **Re-establishment of the endangered Banff Springs Snail into one of its
formerly occupied habitats.**
D.A.W. Lepitzki¹ and C. Pacas²
¹Wildlife Systems Research
²Banff National Park
- 15:50 – 16:10 **Stalking wild transplanted abalone: Are they sticking around?**
Joanne Lessard and Alan Campbell
Pacific Biological Station, Fisheries and Oceans Canada
- 16:10 – 16:30 **Testing the feasibility of releasing captive-bred burrowing owls.**
Ray G. Poulin¹ and L. Danielle Todd²
¹Department of Biological Sciences, University of Alberta
²Canadian Wildlife Service
- 16:30 – 16:50 **Translocation as a promising tool to aid recovery of Badger
populations.**
Nancy J. Newhouse, Trevor A. Kinley, G. Timothy McAllister and Richard
W. Klafki Sylvan Consulting Ltd.
- 16:50 – 17:10 **Criteria for evaluating reintroduction success.**
Devra Kleiman Zoo-Logic
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Session Title: *Identifying and Protecting Critical Habitat 2*
Session Chair: **Kent Prior, Canadian Wildlife Service**
Venue: **Lecture Theatre**

- 15:30 – 15:55 **Delineating critical habitat under the new Species at Risk Act in
Canada.**
Kathryn Lindsay (formerly Freemark)¹, Michael Flaxman², Lutz
Tischendorf³, Medina Hansen⁴, Mark Crisp⁴, Doug Olson⁴, Charlie Pacas⁵,

Dwayne Lepitzki⁵, Kent Prior⁶, Peter Achuff⁷, Christine Bishop⁸, Brian Johns⁹, Mark Bradley¹⁰, Jon McCracken¹¹, and Lyle Friesen¹²

¹National Wildlife Research Centre, Canadian Wildlife Service, Environment Canada

²Landscape Planning and Modeling Consulting

³ELUTIS Modelling & Consulting

⁴Olson+Olson Planning & Design Consultants

⁵Banff National Park, Parks Canada

⁶Endangered Species Conservation, Canadian Wildlife Service, Environment Canada

⁷Species at Risk Recovery, Parks Canada

⁸Canadian Wildlife Service, Pacific & Yukon Region, Environment Canada

⁹Prairie & Northern Wildlife Research Centre, Canadian Wildlife Service, Environment Canada

¹⁰Wood Buffalo National Park, Parks Canada

¹¹Bird Studies Canada

¹²Canadian Wildlife Service, Ontario Region, Environment Canada

15:55 – 16:20 **Preliminary guidance for the identification of critical habitat under the Species at Risk Act.**

Kent Prior Species at Risk Recovery, Canadian Wildlife Service, Environment Canada

16:20 – 16:45 **Implementing critical habitat protection under SARA - Agreements and programs.**

Gregory Thompson Canadian Wildlife Service, Environment Canada

16:45 – 17:10 **Discussion and Questions**

Formal Poster Session 1 17:10 – 19:00

Thursday March 4, 2004

Plenary 2 08:00 – 10:05

Session Title: *The Legislative and Regulatory Framework of Species at Risk in Canada*

Session Chair: **Mary Rothfels**, National Recovery Program, Environment Canada

Venue: **Salon A-B**

- 08:05 – 08:35 **The Species At Risk Act: Implications for recovery.**
Trevor Swerdfager Director General, Canadian Wildlife Service,
Environment Canada
- 08:35 – 08:50 **Great expectations: Legislated recovery and the conservation community.**
Kate Smallwood Kate Smallwood Consulting
- 08:50 – 09:10 **The role of provincial legislation in the recovery of species at risk.**
Sherman Boates Biodiversity Program, Department of Natural Resources,
Nova Scotia
- 09:10 – 09:30 **The role of wildlife management boards in recovery.**
Lindsay Staples Wildlife Management Advisory Council - North Slope
- 09:30 – 09:50 **The United States Endangered Species Act and its implications for recovery teams in Canada.**
Melanie Rowland National Oceanic and Atmospheric Administration
- 09:50 – 10:05 **Questions and Answers**
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Formal Poster Session 2 10:05 – 12:00

Concurrent Session C 13:20 – 15:00

Session Title: *Advances in Status and Ranking Systems: Lists, Bloody Lists 1*

Session Chair: **Kate Smallwood**, Kate Smallwood Consulting

Venue: **Salon A**

- 13:20 – 13:40 **Setting conservation priorities and assessing risk of extinction.**
Larry Master NatureServe
- 13:40 – 14:00 **COSEWIC mandate: Assessment of species considered being at risk in Canada.**
Dick Cannings Committee on the Status of Endangered Wildlife in Canada
- 14:00 – 14:20 **Conservation status as a biodiversity indicator: What a decade of red-listing can tell us about biodiversity in BC.**

J.F. Quayle¹ and L.R. Ramsay²

¹Science, Planning, Analysis and Reporting Section, BC Ministry of Water, Land and Air Protection

²BC Conservation Data Centre, BC Ministry of Sustainable Resource Management

14:20 – 14:40 **A conservation assessment of Mountain Caribou in British Columbia based on IUCN Red List criteria.**

Ian Hatter and James Quayle BC Ministry of Water, Land and Air Protection

14:40 – 15:00 **Plant associations as ecosystems: Issues in application to at-risk status.**
W.H. MacKenzie and D. Meidinger Research Branch, BC Ministry of Forests

Session Title: *Identifying Impacts and Vulnerability of Species at Risk to Climate Change and the Challenges of Conservation and Social Adaptation 1*

Session Chair: **Mark Johannes C-CIARN Fisheries**

Venue: **Salon B**

13:20 – 13:40 **Climate trends in BC, Canada, and the world.**

Bill Taylor Environment Canada, Atmospheric Science

13:40 – 14:00 **Key indicators of climate change in BC and real and potential impacts on species at risk.**

Jenny Fraser¹ and Mark Johannes²

¹BC Ministry of Water, Land and Air Protection

²C-CIARN Fisheries

14:00 – 14:20 **Paleoecology, climate change and forecasting the future of species at risk.**

Richard J. Hebda Royal British Columbia Museum

14:20 – 14:40 **Impacts of climate change on butterfly populations in western North America.**

Jessica J. Hellmann Department of Biological Sciences, University of Notre Dame

14:40 – 15:00 **The future of Peary caribou (*Rangifer tarandus pearyi*) in a changing climate.**

L.E. Harding SciWrite Environmental Sciences Ltd

Session Title: *Challenges of Conserving Species at Risk in Protected Areas 1*

Session Chair: **Pippa Shepherd, Parks Canada**

Venue: **Sidney**

13:20 – 13:40 **Management of ‘at risk’ species in protected areas in the age of ecological integrity: On the horns of a dilemma?**

Thomas D. Nudds Department of Zoology, University of Guelph

- 13:40 – 14:00 **Do British Columbia's protected areas form a system? A multi-scale connectivity approach.**
M. Eng¹, T. Stevens² and A. Fall³
¹Research Branch, BC Ministry of Forests
²Parks and Protected Areas Branch, BC Ministry of Water, Land and Air Protection
³Gowlland Technologies
- 14:00 – 14:20 **Effectiveness of protected areas in conserving species and ecosystems at risk in British Columbia.**
Tory Stevens and Laura M. Darling Parks and Protected Areas Branch, BC Ministry of Water, Land and Air Protection
- 14:20 – 14:40 **Integrating a protected areas species-at-risk conservation needs into regional conservation planning: A case study.**
Pat Fargey Grasslands National Park
- 14:40 – 15:00 **Mammal conservation in a non-equilibrium world: Conflicting results from land-bridge islands and the implications of Pleistocene extinctions.**
D. Brent Gurd Centre for Wildlife Ecology, Simon Fraser University
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Session Title: *Describing and Protecting Important Habitat 1*

Session Chair: **Mike Fenger**, BC Ministry of Water, Land and Air Protection

Venue: **Colwood**

- 13:20 – 13:40 **Development and implementation of the provincial Identified Wildlife Management Strategy in British Columbia, Canada.**
Stewart Guy¹, Kathy Paige¹, Jeff Hoyt¹, Brian (J.B.) Nyberg² and Wayne (W.R.) Erickson²
¹BC Ministry of Water, Land and Air Protection
²BC Ministry of Forests
- 13:40 – 14:00 **Determining critical marine foraging habitats of the threatened Marbled Murrelet (*Brachyramphus marmoratus*) in Pacific Rim National Park Reserve of Canada.**
Trevor B. Haynes¹ and Cliff Robinson^{1,2}
¹Geography Department, University of Victoria
²Western Canada Service Centre, Parks Canada
- 14:00 – 14:20 **Identification and conservation of wolverine reproductive den habitat in BC.**
John Krebs¹ and Eric Lofroth²
¹Columbia Basin Fish and Wildlife Compensation Program
²Biodiversity Branch, BC Ministry of Water, Land and Air Protection
- 14:20 – 14:40 **A habitat model for the threatened Queen Charlotte Goshawk on northern Vancouver Island.**
Todd E. Manning¹, John M. Cooper¹ and John A. Deal²
¹Manning, Cooper and Associates
²Canadian Forest Products Ltd. (Canfor)
- 14:40 – 15:00 **Informational needs for assessing critical habitat.**

Jordan Rosenfeld Aquatic Ecosystem Science, BC Ministry of Water Land and Air Protection

Session Title: *Ecology of Species and Ecosystems at Risk 3*

Session Chair: **Ross Vennesland, BC Ministry of Water, Land and Air Protection**

Venue: **Saanich**

13:20 – 13:40 **Habitat requirements and management needs for the endangered Sage-Grouse in Alberta.**

Cameron L. Aldridge and Mark S. Boyce Department of Biological Sciences, University of Alberta

13:40 – 14:00 **Population biology of the Yellow-breasted Chat (*Icteria virens auricollis*) in the south Okanagan, BC.**

Christine Bishop¹, Tawna Morgan², Lutz Tischendorf³, Tony Williams², Kathryn Lindsay⁴, Doug Olson⁵, Jason Emery⁶ and Rene McKibbin¹

¹Canadian Wildlife Service, Environment Canada

²Department of Biology, Simon Fraser University

³Elutis Modelling and Consulting Inc

⁴Canadian Wildlife Service, National Wildlife Research Centre, Carleton University

⁵Olson and Olson Planning and Design Consultants Inc.

⁶Solitude Environmental Services Inc

14:00 – 14:20 **Habitat selection of Vancouver Island Water Shrews.**

Vanessa J. Craig and Steven F. Wilson EcoLogic Research

14:20 – 14:40 **Population dynamics and habitat enhancement for two vulnerable small mammals in the Okanagan Valley: Western Harvest Mouse and Great Basin Pocket Mouse.**

Thomas P. Sullivan Agroecology Program, Faculty of Agricultural Sciences, University of British Columbia

14:40 – 15:00 **An update on the status and ecology of Keen's Long-eared Myotis (*Myotis keenii*).**

Douglas W. Burles¹ and David W. Nagorsen²

¹Gwaii Haanas National Park Reserve and Haida Heritage Site

²Mammalia Biological Consulting

Session Title: *Technological Advances in Species and Ecosystems Recovery 2*

Session Chair: **Dave Cunningham, Canadian Wildlife Service**

Venue: **Oak Bay 1**

13:20 – 13:40 **The importance of inverse density dependence in population viability analysis: Implications for the recovery of mountain caribou in British Columbia.**

H.U. Wittmer Faculty of Agricultural Sciences, University of British Columbia

- 13:40 – 14:00 **Spatial modelling and the identification of potential habitat.**
Brian Klinkenberg¹ and Ross G. Vennesland²
¹Department of Geography, University of British Columbia
²BC Ministry of Water, Land and Air Protection
- 14:00 – 14:20 **The impact of simplicity: A case study with the threatened *Cirsium scariosum* population of Mingan Islands National Park.**
Patrick Nantel Species At Risk Program, Ecological Integrity Branch, Parks Canada
- 14:20 – 14:40 **Building models for conservation of species at risk: Elements of forecasting habitat supply.**
R.S. McNay Slocan Forest Products
- 14:40 – 15:00 **Application of oceanographic modeling to the recovery of Northern Abalone in Pacific Rim National Park Reserve of Canada.**
C. Robinson¹, J. Morrison² and M. Foreman³
¹Western Canada Service Centre, Parks Canada
²Vynx Design
³Institute of Ocean Sciences, Fisheries and Oceans Canada
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Session Title: ***Compliance 1: Interpretation of Species At Risk Act Specific to Enforcement Agencies***

Session Chair: **Wanda Saunby, Fisheries and Oceans Canada**

Venue: **Oak Bay 2**

- 13:20 – 13:50 **Canada's Species at Risk Act: An enforcement perspective.**
Beverly Hobby Environment Canada
- 13:50 – 14:00 **SARA and enforcement: A DFO perspective.**
Cheryl Webb Fisheries and Oceans Canada
- 14:00 – 14:10 **Species at Risk Act compliance and enforcement: Provincial expectations.**
Bruce Morgan BC Ministry of Water, Land and Air Protection
- 14:10 – 14:20 **Title TBA**
Dan Graham Parks Canada
- 14:20 – 15:00 **Questions and Answers**
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Session Title: ***Conserving Small Populations 1***

Session Chair: **Suzie Lavallee, University of British Columbia**

Venue: **Esquimalt**

- 13:20 – 13:40 **Recovery of a Bighorn Sheep population in the south Okanagan following a disease die-off.**
D.L. Plensky¹, M. Festa-Bianchet¹ and Tom Ethier²
¹Groupe de Recherche en Ecologie, Nutrition et Énergétique, Département de biologie, Université de Sherbrooke
²BC Ministry of Water, Land and Air Protection

- 13:40 – 14:00 **Rarity among plants of Garry Oak meadows: Demographic bottlenecks and phenological constraints.**
Matthew Fairbarns Aruncus Consulting
- 14:00 – 14:20 **Addressing disease risks when recovering species at risk.**
J.K. Gaydos¹ and **K.V.K. Gilardi**²
¹The SeaDoc Society, U.C. Davis Wildlife Health Center, Orcas Island
²The SeaDoc Society, U.C. Davis Wildlife Health Center, School of Veterinary Medicine
- 14:20 – 14:40 **Captive rearing, in-situ headstarting, and release of the endangered Oregon spotted frog (*Rana pretiosa*; OSF) at Naval Radio Section Aldergrove and Seabird Island.**
Russ D. Haycock¹, **Robert A. Woods**², **William Andrew**³, **Gordon Blankstein**⁴, **Mike Delaney**⁵, and **Amber Glaister**⁶
¹Canadian Oregon Spotted Frog Recovery Team
²Director General of Environment, National Defence Headquarters
³Seabird Island First Nations
⁴Mountain View Breeding and Conservation Society
⁵Vancouver Aquarium Marine Science Centre
⁶Greater Vancouver Zoological Centre
- 14:40 – 15:00 **Killer whales at risk: Characterizing habitat quality for the most contaminated marine mammals in the world.**
Peter S. Ross¹ and **Steven J. Jeffries**²
¹Institute of Ocean Sciences, Fisheries and Oceans Canada
²Washington Department of Fish and Wildlife
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Session Title: *The Recovery Team Tool Box 1*

Session Chair: **Judith Hammond**, Canadian Wildlife Service

Venue: **Lecture Theatre**

- 13:20 – 13:40 **Extension tools for recovery team program planning.**
Susan Leech and **Carla Wainwright** FORREX
- 13:40 – 14:00 **An introduction to conservation covenants and their application to critical habitat protection.**
Blair Hammond¹ and **Ann Hillyer**²
¹Canadian Wildlife Service
²Hillyer Atkins
- 14:00 – 14:20 **Working relationships in ecosystem-based management.**
Jennie Sparkes, **Alain Comeau**, **Bill Stephanson**, and **Graham Dodds** Parks Canada
- 14:20 – 14:40 **First Nations Species at Risk Toolkit.**
Byron Louis¹ and **Lawrence Ignace**²
¹Okanagan Nation Alliance
²Environment Secretariat, Assembly of First Nations
- 14:40 – 15:00 **The role of veterinary medicine in recovery planning.**
S.R. Black¹ and **H. Schwantje**²

¹Calgary Zoo Animal Health Centre

²Biodiversity Branch, BC Ministry of Water, Land and Air Protection

Concurrent Session D 15:30 – 17:10

Session Title: ***Advances in Status and Ranking Systems: Lists, Bloody Lists 2***

Session Chair: **Leah Ramsay, BC Conservation Data Centre**

Venue: **Salon A**

15:30 – 15:50 **The conservation value of peripheral populations: The supporting science.**

R. Channell Department of Biological Sciences, Fort Hays State University

15:50 – 16:10 **Risk listing and setting conservation priorities for species in British Columbia – a review of current practices.**

David F. Fraser¹, Sydney G. Cannings², Kathy Paige¹, Kari Nelson¹ and Andrew Harcombe³

¹Biodiversity Branch, BC Ministry of Water, Land and Air Protection

²NatureServe Yukon

³Resource Information Branch, BC Ministry of Sustainable Resource Management

16:10 – 16:30 **Plagued by a plethora of peripherals: Refining guidelines for peripheral taxa.**

F. L. Bunnell and K.A. Squires Forest Sciences Department, University of British Columbia

16:30 – 16:50 **Marginalia or merit: Vascular plants of British Columbia that really matter.**

J. Pojar British Columbia Forest Service

16:50 – 17:10 **Ecosystems at risk – Forgotten pathways to recovery.**

Ted Lea Biodiversity Branch, BC Ministry of Water, Land and Air Protection

Session Title: ***Identifying Impacts and Vulnerability of Species at Risk to Climate Change and the Challenges of Conservation and Social Adaptation 2***

Session Chair: **Mark Johannes, C-CIARN Fisheries**

Venue: **Salon B**

15:30 – 15:50 **Adaptation to climate change in forest management.**

David L. Spittlehouse Research Branch, BC Ministry of Forests

15:50 – 16:10 **Is climate change the achilles heel of protected area planning in Canada?**

Daniel Scott Department of Geography, University of Waterloo

16:10 – 16:30 **Species extinctions in biodiversity hotspots under scenarios of global climate change.**

- Jay R. Malcolm** and Canran Liu University of Toronto
16:30 – 16:50 **Invasive plants: their impacts and control in changing environments.**
Judith Myers, Madlen Denoth and Jacqueline Shaban
Department of Zoology and Faculty of Agricultural Sciences, University of
British Columbia
- 16:50 – 17:10 **BC's Keogh Steelhead as an indicator and example of the challenges of
climate change and species at risk.**
Bruce R. Ward¹ and Don McCubbing²
¹BC Ministry of Water, Land and Air Protection
²InStream Fisheries Consultants
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Session Title: *Advances in Taxonomy 1*

Session Chair: **Ted Down**, BC Ministry of Water, Land and Air Protection

Venue: **Sidney**

- 15:30 – 15:50 **Designatable units for species status assessment and protection.**
D.M. Green Redpath Museum, McGill University
- 15:50 – 16:10 **Delineation of Pacific salmon conservation units for Canada.**
Kristy Ciruna¹ and Blair Holtby²
¹Nature Conservancy of Canada
²Stock Assessment Division, Pacific Biological Station, Department of
Fisheries and Oceans
- 16:10 – 16:30 **Conservation units for steelhead trout in BC.**
E.A. Parkinson, A. Tautz and B. Hooton BC Ministry of Water Land and
Air Protection
- 16:30 – 16:50 **Canada's endemic mammals at risk: Recent taxonomic advances and
priorities for conservation.**
D.W. Nagorsen Mammalia Biological Consulting
- 16:50 – 17:10 **The biogeography of rarity: Rare vascular plants in southwestern
British Columbia.**
E.J. Wheeler, G. A. Allen and M. Fairbarns Department of Biology,
University of Victoria
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Session Title: *Integrating Science and Traditional and Aboriginal Ecological Knowledge
and Wisdom into Our Understanding of Species and Ecosystems at Risk 1*

Session Chair: **Gloria Goulet**, Environment Canada

Venue: **Colwood**

- 15:30 – 15:50 **Where are we now? History, perspectives, and proposed procedures for
including knowledge from aboriginal sources in species status
assessment procedures.**
Gloria Goulet¹, L. Carpenter^{2,3}, H. Lickers^{3,4} and T. Jung⁵
¹Environment Canada

²Committee on the Status of Endangered Wildlife in Canada, Aboriginal Traditional Knowledge Subcommittee

³Wildlife Management Advisory Committee, NWT

⁴Department of the Environment, Mohawk Council of Akwesasne

⁵Yukon Department of Environment

15:50 – 17:10 **Panel Discussion**

Larry Carpenter ATK Subcommittee, COSEWIC

Lawrence Ignace Assembly of First Nations

Alestine Andre University of Victoria

Bob Stevenson SARA Aboriginal Working Group

Henry Lickers ATK Subcommittee, COSEWIC

Chief Harry Nyce, Sr. NISGA'A LISIMS Government

Gerry Couture Yukon Fish and Wildlife Management Board

Lindsay Staples North Slope Wildlife Management Advisory Council

Byron Louis Okanagan Nation Alliance

Paul Skanks SARA Aboriginal Working Group

Session Title: *Ecology of Species and Ecosystems at Risk 4*

Session Chair: **Jennifer Heron, BC Ministry of Water, Land and Air Protection**

Venue: **Saanich**

15:30 – 15:50 **Breeding success of Tufted Puffins in BC reflects ocean temperatures.**

Carina Gjerdrum¹, Colleen Cassidy St. Clair^{1,2}, John Ryder¹, Gwylim Blackburn¹, Anne Vallée³, and Douglas Bertram^{1,4}

¹Department of Biological Sciences, Simon Fraser University

²Department of Biological Sciences, University of Alberta

³Department of Zoology, University of British Columbia

⁴Environment Canada, Canadian Wildlife Service

15:50 – 16:10 **Killer Whales at risk: Assessing the conservation status of distinct, sympatric ecotypes of *Orcinus orca* in British Columbia.**

John K.B. Ford and Graeme M. Ellis Pacific Biological Station, Fisheries and Oceans Canada

16:10 – 16:30 **Historic and current habitat use by North Pacific Right Whales, *Eubalaena japonica*, in the Bering Sea and Gulf of Alaska.**

K.E.W. Shelden, J. M. Waite, P. R. Wade, S.E. Moore and D.J. Rugh Alaska Fisheries Science Center, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, National Marine Mammal Laboratory

16:30 – 16:50 **Distribution and abundance of Northern Abalone (*Haliotis kamtschatkana*) in relation to habitat and predators in Pacific Rim National Park Reserve of Canada.**

T. Tomascik¹ and H. Holmes²

¹Western Canada Service Centre, Parks Canada

²Pacific Rim National Park Reserve of Canada, Parks Canada

- 16:50 – 17:10 **Linking traditional ecological knowledge with contemporary knowledge to conserve Northern Abalone and Sea Otter.**
H. Holmes Pacific Rim National Park Reserve, Parks Canada
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Session Title: *Compliance 2: Compliance Strategies*
Session Chair: **Gary Dick**, Canadian Wildlife Service
Venue: **Oak Bay 2**

- 15:30 – 15:45 **A look at public requested investigations under CEPA: The pro's and cons.**
Gordon Thompson Canadian Environmental Protection Agency
- 15:45 – 16:00 **TBA** Unites States Bureau of Land Management
- 16:00 – 16:15 **A look at endangered species investigations in Washington State.**
Detective Matt Peterson Washington State Department of Fish and Wildlife
- 16:15 – 16:30 **The history behind the Species at Risk Act and the challenges for enforcement.**
Yvan Lafleur Canadian Wildlife Service
- 16:30 – 16:45 **Shannon Williams** Fisheries and Oceans Canada
- 16:45 – 17:10 **Questions and Answers**
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Session Title: *Conserving Small Populations 2*
Session Chair: **Helen Schwantje**, BC Ministry of Water, Land and Air Protection
Venue: **Esquimalt**

- 15:30 – 15:50 **Biological challenges of augmenting small Grizzly Bear populations.**
Grant MacHutchon¹ and Matt Austin²
¹Comox, BC
²Biodiversity Branch, BC Ministry of Water, Land, and Air Protection
- 15:50 – 16:10 **History and current status of the Vancouver Island Marmot (*Marmota vancouverensis*) captive breeding program.**
Malcolm McAdie Marmot Recovery Foundation
- 16:10 – 16:30 **Captive rearing of caribou: A novel approach to enhancing recruitment in a depressed population of woodland caribou.**
Michelle Oakley¹, Richard Farnell¹, Lorne Larocque¹, Don E. Russell² and Robert G. White³
¹Yukon Fish and Wildlife Branch, Department of Environment
²Canadian Wildlife Service, Pacific and Yukon Region, Environment Canada
³Institute of Arctic Biology, University of Alaska
- 16:30 – 16:50 **The role of captive breeding and release in recovery - The case of the Eastern Loggerhead Shrike.**
M. Temple and E. Williams Wildlife Preservation Trust Canada

16:50 – 17:10 **Genetic management of a small and recently salvaged herd of Wood Bison.**

Greg Wilson¹, John S. Nishi² and Keri Zittlau³

¹Department of Integrative Biology, University of California, Berkeley

²Resources, Wildlife and Economic Development, Government of the Northwest Territories

³Department of Biological Sciences, University of Alberta

Session Title: ***Recovery Efforts in North America I***

Session Chair: **Harriet Allen, Washington Department of Fish and Wildlife**

Venue: **Lecture Theatre**

15:30 – 15:50 **A historical review of the challenges and successes of Black-footed Ferret recovery in North America.**

Mike Lockhart¹ and Pat Fargey²

¹U.S. Fish and Wildlife Service

²Grasslands National Park, Parks Canada

15:50 – 16:10 **Canada's Badger (*Taxidea taxus jeffersonii*) recovery team: Coordinating research and management.**

Ian Adams Corvus Communications

16:10 – 16:30 **Wood Bison Recovery.**

Cormack Gates Wood Bison Recovery Team

16:30 – 16:50 **Thames River Aquatic Ecosystem Recovery.**

Ingrid Taylor Upper Thames River Conservation Authority

16:50 – 17:10 **Recovery of Purple Martin in British Columbia: More than a nest box program.**

L. M. Darling¹, J. C. Finlay², T. Gillespie² and B. Cousens³

¹Parks and Protected Areas Branch, BC Ministry of Water, Land and Air Protection

²Victoria BC

³Georgia Basin Ecological Assessment and Restoration Society

Friday March 5, 2004

Concurrent Session E 08:05 – 09:45

Session Title: *Setting Recovery Goals and Objectives 1*

Session Chair: **Dave Cunnington, Canadian Wildlife Service**

Venue: **Salon A**

08:05 – 08:25 **Correlates of population recovery goals in endangered birds in the United States.**

Chris S. Elphick¹, J. Michael Reed² and J. Marcelo Bonta³

¹Department of Ecology and Evolutionary Biology, University of Connecticut

²Department of Biology, Tufts University

³ Lake Oswego, Oregon

08:25 – 08:45 **The Quebec approach to drafting conservation plans for rare plants.**
G. Jolicoeur Quebec Environment Ministry

08:45 – 09:05 **Setting conservation targets in the South Okanagan – Similkameen.**

Orville Dyer¹, Ted Lea¹, Howie Richardson², Geoff Scudder³ and Leanna Warman³

¹ BC Ministry of Water, Land and Air Protection

² Okanagan University College

³ Department of Zoology, University of British Columbia

09:05 – 09:25 **Setting goals and objectives in the context of the adaptive management cycle.**

Nick Salafsky and Richard Margoluis Foundations of Success

09:25 – 09:45 **Applying a wildlife management planning framework to species at risk for results-based recovery planning.**

Margo Matthews¹ and Cormack Gates²

¹Organization of Wildlife Planners and Alaska Department of Fish and Game

²University of Calgary

Session Title: *Identifying Impacts and Vulnerability of Species at Risk to Climate Change and the Challenges of Conservation and Social Adaptation 3*

Session Chair: **Mark Johannes, C-CIARN Fisheries**

Venue: **Salon B**

08:05 – 08:25 **Impacts of climate variation and change events on several threatened or vulnerable salmon populations in southern British Columbia: Implication for conservation and restoration planning.**

- Kim Hyatt**, Margot Stockwell and Paul Rankin Fisheries and Oceans Canada
- 08:25 – 08:45 **Potential impacts of climate change on the distributions of freshwater fish species at risk in Canada.**
Nicholas E. Mandrak, C.C. Chu and C.K. Minns Great Lakes Laboratory for Fisheries and Aquatic Sciences, Fisheries and Oceans Canada
- 08:45 – 09:05 **Endangered salmon in Canada.**
J. R. Irvine Stock Assessment Division, Fisheries and Oceans Canada
- 09:05 – 09:25 **Stock-specific impacts of marine climate change on BC salmon.**
David Welch and Marc Trudel High Seas Salmon Program, Pacific Biological Station, Fisheries and Oceans Canada
- 09:25 – 09:45 **Adapting to climate variation and change: Important issues and lessons to be learned for species at risk across Canada.**
Mark Johannes C-CIARN Fisheries
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Session Title: *Implementing Recovery - Science, Society and Economics 1*
Session Chair: **Patrick Higgins**, Canadian Consulate General
Venue: **Sidney**

- 08:05 – 08:25 **How many eggs should we put in one basket? – Economic input into conservation management.**
Éva-Terézia Vesely School of Geography and Environmental Science, The University of Auckland
- 08:25 – 08:45 **The biology and economics of overharvest: An example from fisheries.**
E. A. Parkinson¹, John Post² and Sean P. Cox³
¹BC Ministry of Water, Land and Air Protection
²Resource Management and Environmental Studies, Simon Fraser University
³Department of Biological Sciences, University of Calgary
- 08:45 – 09:05 **Socioeconomic assessment and monitoring of aquatic species at risk in the Canadian Maritimes.**
Murray A. Rudd Policy and Economics Branch, Maritimes Region, Fisheries and Oceans Canada
- 09:05 – 09:25 **British Columbia versus Canadian Forest Products: Estimating non-market damage to an ecologically sensitive area.**
G. McComb Environmental Economics Branch, Environment Canada
- 09:25 – 09:45 **The economics of stewardship: Implications for investing in species at risk recovery.**
Murray A. Rudd Policy and Economics Branch, Maritimes Region, Fisheries and Oceans Canada
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Session Title: *Aboriginal Peoples, Local Communities, Wildlife Management Boards and Environmental NGOs in Recovery: Case Studies 2*
Session Chair: **Gerald Amos**, Ecotrust

Venue: **Colwood**

- 08:05 – 08:25 **Predators, ranchers, government, and wildlife advocates: A role for ENGOs in an effective conservation framework.**
Jim Pissot Defenders of Wildlife Canada
- 08:25 – 08:45 **TBA**
- 08:45 – 09:05 **Yukon Wood Bison recovery program: Challenges from the community perspective.**
Gerry Couture¹, Harry Smith^{1,2} and Kelly Hayes¹
¹ Yukon Fish and Wildlife Management Board
² Champagne / Aishihik First Nation
- 09:05 – 09:25 **Developing a trans-boundary management strategy for a free-ranging Plains Bison herd.**
Dan Frandsen Prince Albert National Park, Parks Canada
- 09:25 – 09:45 **TBA**
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Session Title: ***Public Outreach and Education 1***
Session Chair: **Rick Kool, Royal Roads University**
Venue: **Saanich**

- 08:05 – 08:25 **Public education - An important and relevant tool for species recovery.**
S.L. Currie Parks Canada
- 08:25 – 08:45 **Building an effective endangered species education program: Process, content, and benefits to conservation.**
Gareth Thomson Canadian Parks and Wilderness Society
- 08:45 – 09:05 **Public education and involvement in species recovery.**
Darlene Upton¹ and Glenda Clayton²
¹Georgian Bay Islands National Park
²Reptile Awareness Program Coordinator
- 09:05 – 09:25 **The effectiveness of the outreach program for the Sensitive Ecosystems Inventory of east Vancouver Island and the Gulf Islands.**
Marlene Caskey and Margaret Henigman
Environmental Stewardship Division, BC Ministry of Water, Land and Air Protection
- 09:25 – 09:45 **Drink a beer, save a fish.**
A. Branchaud¹ and A.D. Gendron²
¹Species at Risk Branch, Environment Canada
²St. Lawrence Centre, Environment Canada
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Session Title: ***Industry and Regulations: Linking Regulatory Compliance, Stewardship and Innovation 1***
Session Chair: **Ed Hill, BC Hydro**
Venue: **Oak Bay**

- 08:05 – 08:25 **The challenge of managing woodland caribou habitat in Alberta: A forest management perspective.**
Luigi Morgantini¹ and Fiona Schmiegelow²
¹Weyerhaeuser Company Ltd.
²Department of Renewable Resources, University of Alberta
- 08:25 – 08:45 **Identifying industrial land use targets for boreal ecotype Woodland Caribou range to determine allowable levels of cumulative effects for a threatened species.**
Philip D. McLoughlin¹, Troy Sorensen² and Dave P. Hervieux²
¹Alberta Research Council
²Fish and Wildlife Division, Alberta Sustainable Resource Development
- 08:45 – 09:05 **Does the wind power industry threaten Marbled Murrelets or do Marbled Murrelets threaten the wind power industry?**
John M. Cooper and Suzanne M. Beauchesne Manning, Cooper and Associates
- 09:05 – 09:25 **Marbled Murrelet nesting habitat conservation strategy for Tree Farm Licence 37, north central Vancouver Island.**
J. Deal¹ and W.L. Harper²
¹Canadian Forest Products Ltd, Coastal Operations
²Osiris Wildlife Consulting
- 09:25 – 09:45 **Recovering the endangered Short-tailed Albatross: Interplay of international, inter-agency, and industry interests.**
J. Jacobs U.S. Fish and Wildlife Service, Anchorage Fish and Wildlife Field Office
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Session Title: *Ecology of Species and Ecosystems at Risk 5*

Session Chair: **Eric Parkinson**, BC Ministry of Water, Land and Air Protection

Venue: **Esquimalt**

- 08:05 – 08:25 **The status of Northern Leopard Frogs (*Rana pipiens*) in British Columbia.**
Doug Adama^{1,2} and Marc-Andre Beaucher^{2,3}
¹Adama Wildlife
²Columbia Basin Fish and Wildlife Compensation Program
³Beaucher Wildlife
- 08:25 – 08:45 **Terrestrial invertebrates at risk in British Columbia: Overview and update.**
Jennifer Heron Biodiversity Branch, BC Ministry of Water, Land and Air Protection
- 08:45 – 09:05 **Determining the status of British Columbia's dragonflies - getting it right.**
Leah Ramsay¹ and Rob Cannings²
¹BC Conservation Data, BC Ministry of Sustainable Resource Management
²Royal British Columbia Museum
- 09:05 – 09:25 **Rubber boas at Radium Hot Springs.**

Robert St. Clair¹ and Alan Dibb²

¹Freelance biologist/statistician

²Kootenay National Park, Parks Canada

09:25 – 09:45 **Rare bryophytes in British Columbia: Inventory and conservation issues.**

Terry McIntosh Biospherics Environmental Inc

Session Title: *Recovery Efforts in North America 2*

Session Chair: **Don Lawseth**, Fisheries and Oceans Canada

Venue: **Lecture Theatre**

08:05 – 08:25 **Recovery efforts for Piping Plover in Prince Edward Island National Park of Canada.**

L. Thomas and D.Lajeunesse Prince Edward Island National Park of Canada

08:25 – 08:45 **Conservation of the Wood Turtle in the Shawinigan River watershed.**

S. Paradis Ecosystem Conservation Service, Parks Canada

08:45 – 09:05 **Two years of strategic salmon recovery: The experience of Pacific Salmon Foundation.**

Rich Chapple Pacific Salmon Foundation

09:05 – 09:25 **Interjurisdictional challenges to conservation of the southern resident Killer Whales.**

Margot Venton Sierra Legal Defence Fund

09:25 – 09:45 **Recovery planning for species at risk in the Sydenham River, Ontario – A watershed-based ecosystem approach.**

Alan J. Dextrase¹, Shawn K. Staton², and Janice L. Metcalfe-Smith³

¹Species at Risk Section, Ontario Parks

²Great Lakes Laboratory for Fisheries and Aquatic Sciences, Fisheries and Oceans Canada

³National Water Research Institute, Environment Canada

Concurrent Session F 10:15 – 11:55

Session Title: *Biology and Impacts of Alien Species 1*

Session Chair: **Carmen Cadrin**, BC Conservation Data Centre

Venue: **Salon A**

10:15 – 10:35 **Plant species origin and biodiversity in grazed grasslands of British Columbia's southern interior.**

Don Gayton FORREX

- 10:35 – 10:55 **Recent rapid range expansion and impacts of the introduced American bullfrog (*Rana catesbeiana*) in British Columbia: Is eradication or even control feasible?**
Purnima Govindarajulu and Bradley R. Anholt Department of Biology, University of Victoria
- 10:55 – 11:15 **TBA**
- 11:15 – 11:35 **Ecology, biology and control of some exotic-invasive weeds on federal lands in British Columbia, Canada.**
Raj Prasad, J. Benner and S. Bundel Pacific Forestry Centre
- 11:35 – 11:55 **Effect of habitat loss and invasion by Scotch Broom (*Cytisus scoparius*) on rare butterflies of Garry Oak meadows.**
Wayne Hallstrom and Jens Roland Department of Biological Sciences, University of Alberta
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Session Title: ***Risk Assessment 1***

Session Chair: **Mike Fenger, BC Ministry of Water, Land and Air Protection**

Venue: **Salon B**

- 10:15 – 10:35 **Monitoring for population trend and cause of population change in Marbled Murrelets.**
P. Arcese¹, G. Sutherland² and D. Steventon³
¹Centre for Applied Conservation Research, University of British Columbia
²Cortex Consulting
³BC Ministry of Forests
- 10:35 – 10:55 **Risk assessment as a tool to evaluate health status of a salvaged herd of captive Wood Bison.**
John S. Nishi¹, Randall S. Morley², Sanping Chen³ and Brett T. Elkin¹
¹Resources, Wildlife and Economic Development, Government of the Northwest Territories
²Animal Health Risk Assessment, Canadian Food Inspection Agency
³Carleton Quantitative Research
- 10:55 – 11:15 **Assessing ecosystem risk in streams using high frequency water quality data.**
Ed J. Quilty and John S. Richardson Department of Forest Sciences, University of British Columbia
- 11:15 – 11:35 **Population ecology of the Coastal Giant Salamander: A preliminary demographic model and viability analysis.**
John S. Richardson Department of Forest Sciences, University of British Columbia
- 11:35 – 11:55 **Assessment of risk to Marbled Murrelets (*Brachyramphus marmoratus*) of forest policy alternatives in British Columbia.**
J.D. Steventon¹, G.D. Sutherland² and P. Arcese³
¹ BC Ministry of Forests
² Cortex Consultants
³ University of British Columbia

Session Title: ***Habitat Restoration as a Recovery Tool 1***

Session Chair: **Don Eastman Restoration of Natural Systems Program, University of Victoria**

Venue: **Sidney**

- 10:15 – 10:35 **Working to restore Oregon Silverspot Butterfly (*Speyeria zerene hippolyta*) populations on the Pacific Northwest coast: Captive rearing and release combined with habitat restoration and monitoring.**
David Shepherdson¹, Mary Jo Andersen¹, Blair Csuti¹, Dave Hays², Debbie Pickering³, Erin Sullivan⁴, Greg Toffic⁴ and Anne Walker⁵
¹Oregon Zoo
²Washington Department Fish & Wildlife
³The Nature Conservancy
⁴Woodland Park Zoo
⁵Oregon Fish and Wildlife Office, United States Fish and Wildlife Service
- 10:35 – 10:55 **Does the type of disturbance matter for the restoration of fire-suppressed Garry Oak savanna?**
Andrew S. MacDougall and Roy Turkington Department of Botany, University of British Columbia
- 10:55 – 11:15 **Using recovery science and recovery action in mutual support: Habitat restoration for the Salish Sucker (*Catostomus sp.*).**
Mike Pearson Institute for Resources, Environment and Sustainability, University of British Columbia and Langley Environmental Partners Society
- 11:15 – 11:35 **Habitat restoration for the endangered Sharp-tailed Snake.**
Kristiina Ovaska and Christian Engelstoft Alula Biological Consulting
- 11:35 – 11:55 **Wetland restoration in the Comox Valley.**
E.J. Sellentin Comox Valley Naturalists Society

Session Title: ***Understanding Private Landowner Needs in Species and Ecosystem Recovery 1***

Session Chair: **Margaret Birch, BC Hydro**

Venue: **Colwood**

- 10:15 – 10:35 **The South Okanagan-Similkameen Conservation Program's partnership-based approach to species at risk recovery and stewardship.**
Shawn D. Black TLC The Land Conservancy of BC
- 10:35 – 10:55 **Partners in stewardship: An example of using incentives for agricultural wildlife habitat enhancement.**
Markus Merkens Delta Farmland and Wildlife Trust
- 10:55 – 11:15 **Unusual bedfellows: Science, commerce, and advocacy working together to conserve Mountain Caribou habitat.**

- G. Arnold** and E. Riccius Canadian Parks and Wilderness Society
11:15 – 11:35 **Working with species at risk ...Working with people?**
Clive Callaway and Sarah Kipp The Living by Water Project
11:35 – 11:55 **Stakeholder involvement in species at risk recovery planning: A multiple case study in southern Ontario.**
Michael R. Nelson School of Environmental Design and Rural Development, University of Guelph
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Session Title: *Public Outreach and Education 2*
Session Chair: **Shawna Lee Currie, Parks Canada**
Venue: **Saanich**

- 10:15 – 10:35 **Survival of glass houses in a war zone.**
W. C. Austin Marine Ecology Station & Khoyatan Marine Lab
10:35 – 10:55 **Educating about species at risk in Alberta.**
Heather Wheeliker Alberta Environment Education and Outreach Section
10:55 – 11:15 **Battling aliens and saving SARs: A case study of outreach that works from the Garry Oak Ecosystems Recovery Team.**
C. Junck¹, **M. Bien**² and **C. Ferguson**²
¹Garry Oak Ecosystems Recovery Team
²Restoration of Natural Systems Program, University of Victoria
11:15 – 11:35 **Promoting knowledge of grizzly bears among recovery zone residents in Washington's North Cascades.**
C. Morgan¹, **J. Davis**², **T. Ford**³ and **N. Laney**³
¹Insight Wildlife Management
²Conservation Partnership Center
³Grizzly Bear Outreach Project
11:35 – 11:55 **Species at risk invade your living room.**
Hélène Gaulin Education and Outreach, Species at Risk, Canadian Wildlife Service, Environment Canada
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Session Title: *The Role of Stewardship and Innovation in Regulatory Compliance - Industry Perspectives 1*
Session Chair: **Bonny Hill, BC Hydro**
Venue: **Oak Bay**

10:15 – 11:55 **Panel Discussion**

Bonny Hill BC Hydro
Dave Butler Canadian Mountain Holidays
Walter Kuit Teck Cominco
Steve Thomson BC Agriculture Council
Peggy Strankman Canadian Cattlemen's Association
Ian Scott Canadian Association of Petroleum Producers

Andrew deVries Forest Products Association of Canada
Bob Woods Department of National Defence

Session Title: *Ecology of Species and Ecosystems at Risk 6*
Session Chair: **Jeff Lewis**, Washington Department of Fish and Wildlife
Venue: **Esquimalt**

- 10:15 – 10:35 **Hyperpredation, behavior and landscape change: Understanding the proximate and ultimate causes of decline in Vancouver Island marmots.**
Andrew A. Bryant Marmot Recovery Foundation
- 10:35 – 10:55 **Habitat relationships of Northern Spotted Owls.**
Larry L. Irwin National Council for Air and Stream Improvement
- 10:55 – 11:15 **Badger ecology in the Cariboo region of British Columbia, Canada.**
Roger Packham and Corinna Hoodicoff BC Ministry of Water, Land and Air Protection
- 11:15 – 11:35 **Life on a highway: Sources of mortality in an endangered British Columbia badger population.**
Richard D. Weir¹, Helen Davis¹, Corinna Hoodicoff² and Karl W. Larsen³
¹Artemis Wildlife Consultants
²BC Ministry of Water, Land and Air Protection
³University College of the Cariboo
- 11:35 – 11:55 **Lynx ecology in western Montana.**
John R. Squires and Leonard F. Ruggiero Wildlife Ecology Work Unit, Rocky Mountain Research Station, United States Forest Service
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Session Title *Recovery Efforts in North America 3*
Session Chair: **Linda Coady**, World Wildlife Fund Canada
Venue: **Lecture Theatre**

- 10:15 – 10:35 **Upper Columbia White Sturgeon recovery initiative – planning and recovery.**
C. Spence BC Ministry of Water, Land and Air Protection
- 10:35 – 10:55 **The Burrowing Owl story – Science and stewardship in action.**
M. Mackintosh¹, E. Leupin² and D. Brodie³
¹Burrowing Owl Conservation Society of BC
²Ecoscape Environmental Consulting
³Burrowing Owl Conservation Society of BC
- 10:55 – 11:15 **Stewardship and science: A case study of the Piping Plover and Harlequin Duck recovery in Newfoundland and Labrador.**
Peter Thomas Canadian Wildlife Service, Environment Canada
- 11:15 – 11:35 **Recovery of Sea Otters in British Columbia.**
L. M. Nichol¹, J.C. Watson², J.K.B. Ford¹, G. Ellis¹ and E. Greg³
¹Pacific Biological Station, Fisheries and Oceans Canada

²Malaspina University College

³SciTech Consulting

11:35 – 11:55 **Bull trout management and recovery in Alberta.**

Kerry Brewin Dillon Consulting

Plenary 3 13:20 – 15:20

Session Title: ***The Challenge Ahead – Recovery Within the Bigger Picture of Biodiversity Conservation***

Session Chair: **Bruce Morgan, BC Ministry of Water, Land and Air Protection**

Venue: **Salon A-B**

13:20 – 13:50 **A global conservation perspective and species recovery in Canada.**

Dr. Ian Thompson Natural Resources Canada

13:50 – 14:20 **Warmer and weedier? Climate change, invasive species, and species at risk.**

Dr. Jeffery Dukes University of Massachusetts

14:20 – 14:50 **The Nature Audit: Advancing Canada's conservation agenda.**

L. Rodger World Wildlife Fund Canada

14:50-15:20 **Restoring species, ecosystem and (human) communities.**

Dr. Eric Higgs Restoration of Natural Systems Program, University of Victoria

