

## 2009 Alliance Annual Report

In 2009, the NW Zoo & Aquarium Alliance made significant progress in advancing our mission to promote collaboration among Pacific Northwest zoos and aquariums to engage in action that sustains ecosystems. A new three-year strategic plan identifies goals and high priority projects, allowing us to focus our collaborative efforts to maximize conservation outcomes. For more information, visit [www.nwzaa.org](http://www.nwzaa.org) or contact the Alliance at [info@nwzaa.org](mailto:info@nwzaa.org).

### ALLIANCE PLANNING

#### **Alliance Strategic Plan**

The Alliance Board of Directors adopted a three-year Alliance Strategic Plan in July 2009. The strategic plan was developed by the Alliance Director, with significant input from all Directors and several dozen key staff, at multiple stages in the process. The strategic plan affirms the Alliance mission and adds a vision statement. It articulates the Alliance's unique niche in the Pacific Northwest conservation community. The strategic plan emphasizes collaboration, in addition to communication and cooperation. It also outlines the roles and responsibilities of the Alliance Director, Board of Directors, and staff-level leaders, coordinators, and teams. The strategic plan identifies four major goals with objectives: ecosystem conservation, green practices, citizen conservation, and public policy. The first three goals encompass most Alliance conservation projects and are listed below to share our progress in 2009.

#### **Alliance Annual Meeting**

The annual Alliance meeting was held at the Oregon Coast Aquarium (Newport, Oregon) in October 2009. The meeting drew 48 people, including zoo / aquarium directors and staff, and external partners. We met for 1.5 days, with most time devoted to breakout sessions for the highest priority projects in the Alliance Strategic Plan. Cathy Macdonald (Director of Conservation Programs, Oregon office of The Nature Conservancy) gave a presentation to the whole group on "Ecosystem Conservation in the Pacific Northwest: Concepts, Priorities and Resources". The Ecosystem Conservation group continued this discussion during their breakout session. We coordinated an optional restoration project following the 1.5 day meeting, in partnership with the U.S. Fish & Wildlife Service. About 20 zoo / aquarium staff, zoo teens, and other volunteers had a memorable and fun experience planting native violets and nectar plants in the driving rain, to restore habitat for Oregon Silverspot Butterflies.

#### **Alliance Small Grants**

The Alliance awarded its first round of internal small grants in 2008. Four projects were funded: Oregon Spotted Frog Rearing, Carbon Footprint Tracking, Backyard Habitat Website and Certification, and Smart Pet Choices Pocket Card. These projects were successfully implemented

in 2008-2009. In late 2009, a second round of internal small grants was awarded for three projects: Rockfish Survey, Carbon / Water Footprint Tracking, and Climate Action. These grants will support implementation of high priority projects in the Alliance Strategic Plan in 2010.

## **ALLIANCE OUTREACH TO NATIONAL AUDIENCES**

### **Association of Zoos & Aquariums - Annual Conference**

The 2009 AZA annual conference was held in Portland, Oregon. The Alliance had a significant presence at the conference because of the location in the Pacific Northwest. Pre- and post-conference field trips to Oregon Coast Aquarium, Point Defiance Zoo & Aquarium, and Northwest Trek Wildlife Park were well attended. In addition to a poster session about the Alliance, we organized and presented three 90-minute panels.

- NW Zoo & Aquarium Alliance: Promoting Regional Conservation (poster)
- From Species Recovery to Ecosystem Conservation in the Pacific Northwest
- Climate Change: Innovation and Collaboration in the Pacific Northwest
- Regional Collaboration: Diverse Models for Effective Local Conservation

### **Mentoring and Coordination with Other Regions**

The Alliance coordinated networking between regional collaboration efforts (Pacific Northwest, California, Great Lakes, New England, Mid Atlantic, and Southeast). This coordination included a 90 minute panel presentation (see above) and a lunchtime roundtable discussion at the annual AZA conference. In addition, the Alliance assisted several other regions in their efforts to initiate regional collaborative efforts for local conservation (Southeast USA and California).

## **ECOSYSTEM CONSERVATION: Protect and restore species, habitats, and natural functions based on ecosystem-scale conservation priorities**

The Alliance Strategic Plan moves us from the previous focus on Species Recovery to a broader context of Ecosystem Conservation. Since adoption of the strategic plan in July 2009, we began taking steps to transition from the species-level focus to the landscape-scale ecosystem focus. The first step was to place the species recovery projects in an ecosystem context, which we did in a 90-minute panel at the AZA annual conference in Portland (September 2009): “From Species Recovery to Ecosystem Conservation in the Pacific Northwest”. The next step was to develop a framework for ecosystem conservation for the Alliance.

### **Alliance Framework for Ecosystem Conservation**

For the Alliance annual meeting in October 2009, the Alliance Director and the Ecosystem Conservation staff leaders developed and presented a framework for ecosystem conservation. The framework focuses on conservation priorities in the Pacific Northwest, including high priority (at-risk) species, habitats, and/or locations. The framework looks to existing conservation plans to identify high priority species, habitats, and locations - including state wildlife action plans and The Nature Conservancy’s ecoregional plans. The framework provides

a shared ecoregional context for Alliance projects that address conservation priorities, which will lead to greater conservation outcomes. An Alliance ecosystem conservation “portfolio” includes projects implemented by one or more Alliance members, such as species recovery and habitat restoration projects. The framework places a broad range of projects in the ecosystem conservation context, allowing the Alliance to market its skills and resources and to strengthen relationships with key conservation partners.



CR-18: Yaquina Bay Conservation Opportunity Area

### **Species Recovery Projects**

The following species recovery projects are presented from west to east.

#### Sixgill Shark – Population and Genetics Research (*Hexanchus griseus*)

Seattle aquarium, Point Defiance Zoo & Aquarium, Washington Department of Fish and Wildlife, University of Washington, Army Corps of Engineers, and National Marine Fisheries Service have partnered since 2002 in a multidisciplinary study of sixgill sharks in the inland estuary of Puget Sound in Washington. This project involves four interwoven techniques to determine sixgill biology and ecology using genetics research, visual marker tagging and recapture, acoustic tracking, and video analysis of behavior. This research should improve our basic understanding of sixgill population parameters and movement patterns, enabling better conservation and management of this deep water and relatively unknown species.

#### Rockfish – Population Research (*Sebastes sp.*)

Rockfish are long-lived sessile fish that are species of conservation concern in both Oregon and Washington. In 2009, Seattle Aquarium, Point Defiance Zoo & Aquarium, Oregon Zoo, and Oregon Coast Aquarium began collaborating to document and understand shifting baselines of rockfish diversity and distribution in marine ecosystems in Puget Sound, the Strait of Juan de Fuca, and the Oregon Coast. Shifting baselines are the slow, subtle changes in ecosystems over time, resulting in dramatic shifts in species distribution and abundance caused by natural and/or man-made factors. An Alliance Small Grant will support this research in 2010.

#### Sea Otter – Disaster Response and Research (*Enhydra lutris*)

Seattle Aquarium, Point Defiance Zoo & Aquarium, Oregon Zoo, and Oregon Coast Aquarium are all part of the Washington Department of Fish and Wildlife’s sea otter disaster response plan. These facilities have expertise in the care of sea otters and will receive and care for rescued otters in the event of a disaster affecting the wild sea otters off the Washington Coast. Seattle Aquarium and Point Defiance Zoo & Aquarium participate in the annual Washington State sea otter census. Seattle Aquarium also conducts non-invasive research on sea otter genetics and endocrinology to determine population health. At the Fall 2009 Alliance meeting, Alliance members discussed supporting the Elakha Alliance in their efforts to reintroduce sea otters to the Oregon coast, which could also lead to reestablishment of the kelp forest ecosystem.

Oregon Silverspot Butterfly – Population Supplementation Project (*Speyeria zerene hyppolyta*)

In Fall 2009, 30 adult female butterflies were captured and sent to Alliance institutions. They laid 8,379 eggs which resulted in 2,879 pupae and 813 larvae for release into the wild, making this one of the most successful years of this 10-year project. On the coast, sites that previously had 0-10 butterflies recorded more than 40 in 2009, thanks to years of work on captive rearing and release, along with intensive habitat restoration. Zoo horticulture staff also had a successful year raising the host plant (*Viola adunca*) and nectar plants. Over 10,000 seedlings were grown to plant at coastal sites to hasten habitat restoration. Alliance staff and volunteers spent a weekend in October 2009 planting violets. Alliance institution teens and summer camp participants visited the butterfly conservation labs for a behind-the-scenes look at what it takes to save this threatened species from extinction.



Oregon Spotted Frog – Population Supplementation Project (*Rana pretiosa*)

In 2008, 549 frogs were released at Dailman Lake on Fort Lewis in Washington, and 16 frogs were successfully radio tracked and their movements followed. An additional 147 frogs were released in March 2009, as the last of the 2008 cohort. In March 2009, 14,080 eggs were collected from sites at Conboy Lake National Wildlife Refuge and the Black River in Washington. These frogs were reared by Alliance institutions and a new partner - Cedar Creek Corrections Center in Washington. In November 2009, over 515 frogs were released at Fort Lewis. 2009 also had a greatly increased commitment to spotted frog egg mass monitoring surveys at Conboy. Over 80 days of fieldwork effort were contributed by Alliance staff, volunteers, and interns over four weekends in March 2009, working with staff from Washington Department of Fish and Wildlife and U.S. Fish & Wildlife Service.

Western Pond Turtle – Population Supplementation Project (*Actinemys marmorata*)

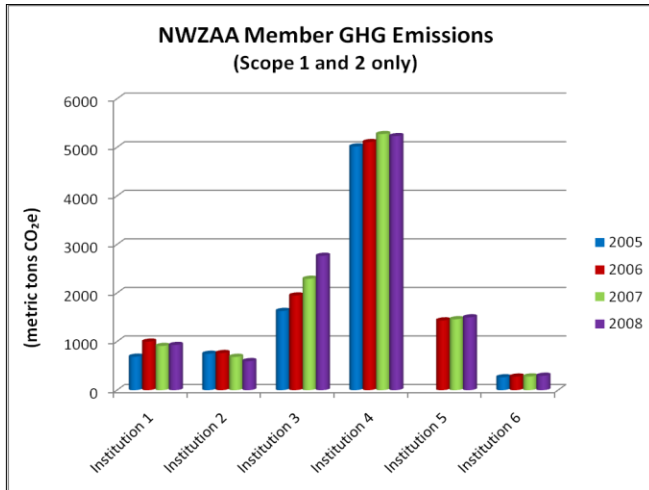
In 2009, 158 turtles that were head-started by Alliance institutions were released at sites in the Puget Sound area and in the Columbia Gorge. The Columbia Gorge population now numbers over 1,500. The re-establishment of populations at two sites from which turtles were extinct is nearly complete. Alliance members also assisted Washington Department of Fish and Wildlife in the radio tracking of female turtles in Summer 2009, to locate nests from which to collect hatchlings for head-starting and release in 2010.

Columbia Basin Pygmy Rabbit – Reintroduction Project (*Brachylagus idahoensis*)

Alliance institutions (in partnership with Washington Department of Fish and Wildlife, U.S. Fish & Wildlife Service, and Washington State University) produced 64 surviving pygmy rabbits kits in the 2009 breeding season. Currently the population stands at 102. These rabbits may all be released back into their former habitat in 2010, pending an imminent decision by Washington Department of Fish and Wildlife and U.S. Fish & Wildlife Service.

## **GREEN PRACTICES: Lead by example to reduce our facilities' and our visitors' ecological footprints**

In 2009, the Green Practices group continued to track our carbon footprint, focusing on liquid fuels, electricity, and natural gas (Scope 1 and 2 emissions). Emissions are tracked as CO<sub>2</sub> equivalent (CO<sub>2</sub>e) and include carbon dioxide, methane, and nitrous oxide. Our work in 2009 also included learning more about emissions factors for electricity in the Pacific Northwest. As we began to explore CO<sub>2</sub> reduction goals, we realized that most Alliance members do not have data older than 2000-2005, making reduction goals following Kyoto (1990 baseline) impossible



to adopt. A synopsis of our work to date was presented at the Association of Zoos & Aquariums' annual conference in Portland, as part of an Alliance-focused session on climate change. In 2010, we will focus on developing a more comprehensive carbon footprint by considering the impacts of our staff, visitors, and vendors (Scope 3). We will undertake this work in 2010 with support from an Alliance Small Grant. Our 2010 work plan also includes initiating tracking of water impacts and preparing a master list of items to begin tracking, to anticipate future needs for data.

## **CITIZEN CONSERVATION: Engage visitors and communities in taking conservation action and connecting with nature**

### **Climate Action**

In Spring 2009, we developed project goals and a draft messaging framework. The framework was adapted from work done at a climate change conference held at Monterey Bay Aquarium in December 2008, which three members of the this group attended. A primary goal is to include both zoos and aquariums. In Summer 2009, we conducted a baseline survey at three Alliance institutions on visitors' awareness of climate change and its impact on Northwest wildlife, their willingness to take action, and their views of zoos' and aquariums' role with climate change. Some questions were repeated from a recent national study on public attitudes towards climate change, for comparison with national data. Findings indicate that visitors to Northwest zoos and aquariums consider climate change a significant problem facing wildlife, both locally and globally. At the 2009 Association of Zoos & Aquariums annual conference in Portland, we presented our work to date. ecoAmerica presented their 5 year, national campaign with AZA. As a result we are now working closely with ecoAmerica, which brings national research and specialized marketing skills to our project. In 2010, we will continue working with ecoAmerica as both messaging projects move forward. This group received an Alliance Small Grant that will fund messaging development and testing in 2010. Two working group members were awarded funding to attend the Climate Literacy Conference in San Diego in February 2010.

### **FrogWatch / Amphibian Monitoring**

FrogWatch, a program of the Association of Zoos & Aquariums, trains the public to monitor for frog presence/absence using frog calls. AZA plans to make the program more rigorous to enable data sharing with conservation groups and agencies. Northwest Trek is involved with the Washington Department of Fish and Wildlife amphibian monitoring protocol, which uses egg mass identification. The FrogWatch protocols may not be rigorous enough to provide useful data for the Pacific Northwest, being based on frog calls only; the WDFW protocols may provide more useful data. When we are ready to move forward with this project, the Alliance Citizen Conservation group will coordinate with the Ecosystem Conservation group to identify regional conservation priorities (species and locations) that amphibian monitoring can support.

### **Backyard Habitat**

The Alliance Backyard Habitat Working Group accomplished two major projects in 2009. Thanks to an Alliance Small Grant, community members in the Pacific Northwest have two new resources for creating wildlife habitat in their backyard, schoolyard, or community garden. An extensive website ([www.nwzaa.org/backyard](http://www.nwzaa.org/backyard)) provides resources for creating backyard habitat in the Pacific Northwest. A new Alliance partner certification system was established with National Wildlife Federation and Washington Department of Fish and Wildlife. These new resources launched in May 2009 and already over 40 backyards, parks, and community gardens have been certified, including every NW Zoo & Aquarium Alliance institution's grounds.

### **Living with Carnivores**

Carnivores, and their complex relationships with humans, are high priority topics for many Alliance zoos and aquariums. This project focuses on large and/or at-risk carnivores, including grizzly bears, black bears, wolves, cougars, coyotes, and sharks. At the Fall 2009 Alliance meeting, this group compiled information about each institution's carnivore programs, including local carnivore species on exhibit, signage, field conservation projects, partnerships, and other programs. Alliance members are networking to share ideas and resources that will enhance each institution's efforts.

### **CONTRIBUTORS**

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