



# The All-Bird Bulletin

*Bird Conservation News and Information*

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*Advancing integrated bird conservation in North America*

## Strategic Communications: An Essential Ingredient for Bird Conservation

*Roxanne E. Bogart, The All-Bird Bulletin Editor, U.S. Fish and Wildlife Service*

We are at a crossroads in bird conservation. Bird populations throughout the hemisphere are in jeopardy from a host of human behaviors that are destroying and degrading the habitats these species need to survive. While plans have been written and scientific knowledge and technologies continue to advance, many of us in the bird conservation community are still grappling with how to communicate with the people who can help us conserve and manage habitats for birds in decline. For ultimately, we need to change the behaviors of the people who influence, use, or benefit from birds and the landscapes they depend on.

Articles in this issue of *The All-Bird Bulletin* are dedicated to the importance of communications in securing a future for North America's bird populations. The first four articles discuss the dire need for strategic communications — communications that is well-planned and fully integrated into a conservation program. The last four describe specific regional communications, education, and outreach projects that are innovative, interdisciplinary, and timely.

Four of the authors are communications professionals for the bird habitat joint ventures — regional, self-directed public-private partnerships working to conserve habitats for bird populations of concern. One is Education & Outreach Director of the Klamath Bird Observatory and Chair of the Bird Education Alliance for Conservation. Another is the Communications Coordinator for the U.S. Fish and Wildlife Service's Division of Bird Habitat Conservation.

I think all the authors would agree that our communications efforts need to link the health of bird populations to the quality of life issues people care most about. And this is no easy task. As Rachel Levin points out on page 2, we have to use effective, far-reaching methods to deliver moving messages that resonate with people and motivate them to act. To do what? To help us increase resources and conserve and manage habitats for bird populations of concern. Which people? Potential partners, politicians, and the public, to name a few broad categories.

As the U.S. NABCI Committee evaluates where to focus its efforts over the next three-to-five years, it is considering how best to use communications to take advantage of the opportunities of strategic habitat conservation, a new administration, climate change legislation, and the "2008" Farm Bill. Ultimately, communications is critical to every aspect of the conservation work we do, from dealing with the challenges of global warming to improving bird monitoring, international conservation, and private land management.

As Ashley Dayer says on page 4, communications is an essential ingredient for conservation programs — one that should not be left out.

## The Importance of Communications in Conservation

Rachel F. Levin, *Communications Coordinator, U.S. Fish and Wildlife Service, Division of Bird Habitat Conservation*

In the March issue of *The All-Bird Bulletin*, Rex Johnson and Charlie Baxter wrote of the importance of broadening the “bird conservation community” to help us better fulfill our mission to conserve bird populations.

Johnson and Baxter rightly pointed out that wildlife conservation and ecosystem health are considered “aesthetic issues” in American society, falling below physical and emotional health and financial security issues in the realm of human concerns. One way to build a larger community of “motivated actors” who will support our efforts to manage lands for conservation, they write, is “to increase awareness of the importance of healthy ecosystems... using an aggressive marketing and communication campaign.”

I could not agree more. As a public affairs and outreach specialist in the U.S. Fish and Wildlife Service (Service) for 15 years now, I know the value of communications to accomplishing this agency’s conservation mission. As Rex Johnson and Charlie Baxter implied, people cannot — and will not — support or advocate for causes they do not understand or feel connected to.



Learning about conservation at the Yukon Flats National Wildlife Refuge. /Shannon Nelson, USFWS

These days it is not easy for an agency like the Service to make our conservation message heard above the din of the faltering economy, high gas prices, the mortgage crisis, and other “pocketbook” issues. Moreover, as federal government budgets continue to shrink, all of us — even professional communicators — are doing our jobs with fewer resources, more tasks, and less time to devote to each.

Communicating effectively is even more important these days to inspire that cadre of “motivated actors” who will understand and appreciate the conservation work of the Service. These are the people who, among other things, will volunteer at our national wildlife refuges and fish hatcheries, become partners in our restoration projects, and (we hope) tell their members of Congress how important they believe it is to keep Fish and Wildlife Service programs well-funded. In the case of our younger audiences, these are the people who will

become future stewards of their environment and, in some cases, leaders in the conservation field.

There are many important reasons to communicate our conservation messages, and to do it well. How we do it—what methods and even what words we use and who we enlist to help us are as important as the message itself.

In our external affairs and outreach programs, we have traditionally (and most often effectively) used a number of communications methods, including news releases for general and specialized print and broadcast media; print and video public service announcements; and person-to-person communications at conferences and special events.

These days, though, we are confronted with an array of new communications tactics. The Internet is not so new but it is ever-growing in its influence. Blogs, podcasts, YouTube, RSS (Really Simple Syndication) feeds, Facebook, and streaming video are just a few of the ways we can use Web technology to reach new and diverse audiences.

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These communication methods are free of cost in some cases (blogs, for example) and can pay big dividends if used effectively. A January report by the Pew Research Center, for example, found that nearly half of Internet users visited online video sites such as YouTube. A recent video about white nose syndrome in northeastern bats found its way to YouTube. This video featured a Service wildlife biologist discussing white-nose syndrome and visiting bat habitat.

Across the Service, we are beginning to take advantage of some of these “new media” communications methods. The Service and the Interior Department are currently developing guidance on using some of these tools but in the meantime, we should be thinking about how we can further take advantage of the Internet’s astonishing reach, and work with our non-government partners to strategically harness some of this technology right now.

Clearly, the methods we use to communicate are important, but even the words we use can make a big difference. Studies by conservation organizations have shown what words and phrases resonate with the public, and what turns people off when it comes to effective communication about natural resources issues.

A Web site called “Water Words That Work” (<http://www.waterwordsthatwork.com>) explores this concept in-depth, and suggests that using language that everyday Americans understand and identify with can help you engage audiences and inspire them to act. Even something as simple as replacing a more technical term such as “conservation easement” with the more understandable “voluntary land preservation agreement,” for example, could help in our efforts to effectively describe our programs. (Full disclosure: this Web site was created by a former Fish and Wildlife Service public affairs specialist)

Using the right methods and the right words are two ways we can enhance our communication efforts. Another way is through our many partners. Public-private coalitions such as NABCI and bird habitat joint ventures — as well as our refuge and fishery Friends groups and individual partners and volunteers across the country — are invaluable to the Fish and Wildlife Service’s communications efforts. Partners help us to reach out far beyond where our own resources allow, and in some cases, they can help us to take advantage of new media technology to greater benefit.

Many of the joint ventures have dedicated communications and outreach staff — you will read about some of their work in the pages of this issue of *The All-Bird Bulletin*. This team of communicators is focused on raising awareness of and support for joint venture partnerships and projects that support bird conservation. Some of them are Service employees but the majority are from the private sector — our partners actively engaged in conservation communication.

Finally, it is worthwhile to mention that while the Service and its partners have professional communications and outreach staff, it is incumbent upon all of us who are involved with conservation — from biologists to engineers to administrative staff — to think about and practice good communications. Together, we can build that “community of motivated actors” who will support conservation and help us to engage others.

*For more information, contact Rachel Levin, U.S. Fish and Wildlife Service, at [Rachel\\_Levin@fws.gov](mailto:Rachel_Levin@fws.gov)*



Fish and Wildlife Service volunteer holds Prothonotary Warbler for young girl at bird banding event. /Ryan Hagerty, USFWS

## Science, Education, and Partnerships...the Ingredients for Bird Conservation

*Ashley Dayer, Education & Outreach Director, Klamath Bird Observatory and Chair, Bird Education Alliance for Conservation (BEAC)*

Ever tried baking a cake but you were out of eggs? Or what about skimping on the sugar to alleviate the guilt factor? Most likely, your results were disastrous. A floppy cake. A pasty mess. A dry and bitter failure. When cooking up a dinner dish you can eliminate an ingredient and still find yourself eating a great meal, but baking requires precise measurements that allow for certain chemical reactions to occur so your cake appears and tastes just as you intended.



Short-eared Owl at Potter Marsh outreach event, Anchorage, Alaska. /Ronald Laubenstein

Conservation is increasingly becoming analogous to baking a cake. In our work, we are continuously aiming to eliminate or ameliorate some threat to bird conservation — one of any number of flavors. Typically, we base our conservation efforts on a strong ecological foundation, but too often forget to fold in some social sciences or human dimensions, sift in a bit of education, or fully blend the partnerships. Yet, inclusion of all the ingredients — ecological science, social science, education, and partnerships — is critical for achieving meaningful and lasting conservation outcomes.

While we have been focused on and successful in advancing knowledge of bird biology and ecology and the threats impacting bird habitats, we have emphasized less the social science aspects, or human dimensions, of bird conservation. Our human dimensions research has largely been limited to the study of waterfowl hunters, birders, and recreation trends. However, these demographic groups represent a small proportion of those that use, influence, and benefit from the healthy and sustainable ecosystems of which birds are a part.

To truly address the human dimensions of conservation, we want broad segments of society to understand and abide by regulations and policies that protect wildlife, adopt conservation-friendly lifestyles and behaviors, be conservation-aware in their political decisions, and support conservation efforts, morally and financially. To achieve these ends, we must better understand how and why people think and act, and what motivates them to support birds and bird conservation.

Given sound knowledge of human dimensions, we are then reliant on education and communications professionals to create messages that reach appropriate audiences, and affect people to think and act in ways that promotes specific conservation outcomes. We must reach folks with messages about birds, about science, and about conservation in ways that they understand — in ways that align with their values and motivate them to act in support of conservation. Just as with habitat conservation efforts, if we are to effectively conduct conservation education and communications, we must follow best practices that include phases of planning, implementation, and evaluation.

Despite a sound knowledge of human dimensions and effective education and communications efforts, success would still be beyond reach without partnerships. The notion of partnerships for conservation is nothing new. In the past two decades, bird conservation initiatives have proliferated across the continent, notably: North American Waterfowl Management Plan, Partners in Flight (PIF), U.S. Shorebird Conservation Plan, Canadian Shorebird Conservation Plan, Waterbird Conservation for the Americas, North American Grouse Strategy, and Northern Bobwhite Conservation Initiative. Bird habitat joint ventures, originally formed to implement the North American Waterfowl Management Plan, now aim to carry out multiple bird conservation plans using an integrated approach. The North American Bird Conserva-

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tion Initiative (NABCI) developed in 1999 to serve as a coalition for integrated bird conservation and to facilitate the delivery of the full spectrum of bird conservation through partnerships.

While the bird initiatives often host an education or communications working group, the technical emphasis has traditionally been rooted in the ecological sciences. Not until the Bird Education Alliance for Conservation (BEAC) formed in 2007 was there a strong, established effort to coordinate and focus bird education collaboration to address the challenges and needs of bird conservation. Bird conservation educators working on the ground have long recognized that education is a tool to achieve conservation goals. Now, with a mechanism for partnerships in place, their efforts can be galvanized, coordinated, and strategic.

BEAC was formed in the tradition of the aforementioned bird conservation initiatives — as a coalition of educators and others who value education (defined broadly) as a conservation tool. BEAC promotes bird conservation education, engages new audiences in conservation action, develops the tools necessary to improve messages and education materials, and promotes incorporation of education as a tool into the initiatives. In its first year, BEAC has made great strides in serving the bird conservation initiatives by taking on the role of the Education and Communications Working Groups for PIF. It is also contributing to the Joint Venture Communications, Education, and Outreach Team and North American Bird Conservation Initiative Communications Subcommittee.



Orange-crowned Warbler, /Donna Dewhurst.

Working with BEAC, PIF is now addressing a concern that bird conservation plans developed in the past lack human dimensions information and expertise. These plans minimally address education and communications. But, in developing a new Mexico-US-Canada "trinational vision" for North American landbird conservation, PIF has actively sought to form interdisciplinary teams of social and biological scientists to collaborate on designing the most effective plan.

At the heart of this document is a rigorous biological assessment that was undertaken to identify continental conservation priorities for Mexico, Canada, and the United States. But importantly, a social science survey of past users of the PIF North American Landbird Conservation Plan was conducted, revealing information on how people are currently using the plan, and how future PIF plans could be improved. Additionally, under the leadership of BEAC, teams of biology, social science, education, and communications professionals are developing a means to turn the plan objectives into effective education and communications efforts for appropriate audiences. This effort will surely serve as a model for interdisciplinary collaboration across countries, organizations, and disciplines.

In my position as Education and Outreach Director at Klamath Bird Observatory, I have seen the successes that can come from following a conservation recipe that includes human dimensions, education and communications, and partnerships. Klamath Bird Observatory operates based on a mission that follows this recipe: to advance bird conservation through science, education, and partnerships. We eagerly await the conservation successes from BEAC's collaborations with bird conservation initiatives that follow the recipe we have long embraced.

Now for the icing on the cake: time to evaluate our outcomes!

For more information on the Bird Education Alliance for Conservation, visit <http://www.birdedalliance.org> or contact Ashley Dayer at [aad@KlamathBird.org](mailto:aad@KlamathBird.org).

## Bird Conservation and Communications at the Tipping Point

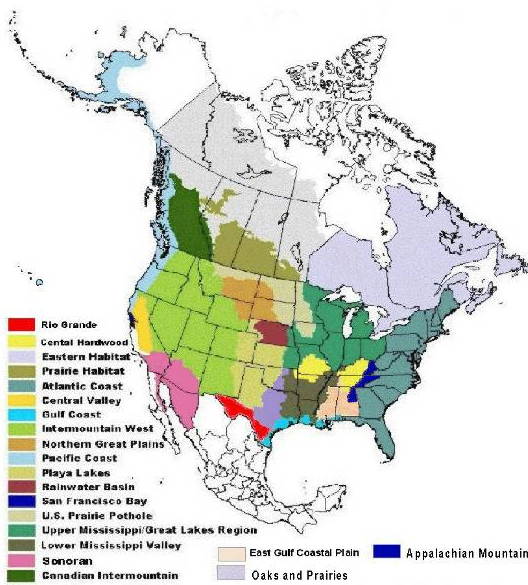
*Debbie Slobe, Communications Team Leader, Playa Lakes Joint Venture*

When I started working for the Playa Lakes Joint Venture six years ago, I was a complete neophyte to the bird conservation world. I had come from a world of daily deadlines, sound bites, and splashy headlines where audience is king. And if your audience didn't care or you couldn't make them care about what you had to say, then there was no point in saying it at all. The acronyms NAWMP, NAWCA, PIF and NABCI were all just alphabet soup to me.

After six years on the job, I think I've tipped the scale a bit in my knowledge of bird conservation and the incredible community of wildlife professionals dedicated to the cause. And in that same time, the bird conservation community has come to a tipping point (if I may steal the term from author Malcolm Gladwell) in its understanding of the importance of strategic communications to its work.

Back in 2002, there were exactly one-and-a-half communications professionals (including myself) working for the many bird species and habitat joint ventures (JVs) spread across the U.S. and Canada. As more JVs started hiring communications experts and as these JVs' outreach programs began to flourish, the importance of strategic communications for bird conservation started to gain recognition.

In 2005, the U.S. Fish and Wildlife Service issued a Director's Order describing the activities of Joint Ventures, which for the first time included communications and outreach. As of August 2008, 12 JVs employed full, part-time, or contract communications and outreach staff: Arctic Goose, Atlantic Coast, Black Duck, Central Valley, Playa Lakes, Rainwater Basin, San Francisco Bay, Sea Duck, Sonoran, Pacific Coast, Intermountain West and Upper Mississippi Valley/Great Lakes. And a few others are currently looking to hire. Last year, these communications and outreach professionals organized into a national team to assist JVs in engaging stakeholders, and to provide guidance on communications and outreach strategies to reach conservation goals.



Map of the bird habitat joint ventures.

Proof that we've reached a tipping point is also evident in the bird education community. Two years ago, the Council for Environmental Education (CEE) hosted the first national gathering of bird educators in Austin, Texas. More than 200 educators attended the conference, igniting an impassioned dialog on the need for a national bird education strategy. So impassioned, in fact, that two groups, with the goal of strategically addressing bird conservation needs through education, formed in the months following this event: the Bird Education Network (BEN) and the Bird Education Alliance for Conservation (BEAC). The former is a construct of the CEE, and the latter a collaborative group serving the national bird conservation initiatives. These two groups are busy forming strategies that include concepts of strategic communications such as identifying target audiences and key messages and influencing behaviors.

The real eye-opener that the bird conservation community is heeding the call for communications was at the 4th International Partners in Flight conference in McAllen, Texas in February. I was in the middle of giving a presentation about the parallel processes of strategic communications and bird conservation planning when it hit me (see page 8). I was explaining how strategic communications follows a similar adaptive management model of plan-implement-evaluate. Instead of birds, strategic communications deals with audiences. Yet like with birds, strategic communications requires determining goals, prioritizing audiences, identifying their limiting factors, implementing programs, and monitoring and evaluating progress. Goals may

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take the form of behavior changes, like keeping cats indoors or signing up for habitat conservation programs. Limiting factors may take the form of lack of awareness, misperceptions, or social or economic barriers (see page 9.) The main point being, science can tell us what the resource needs are, but strategic communications works to change attitudes and behaviors necessary to actually save the resource.

During this talk, I saw heads nod in agreement and faces light up with understanding. Afterward, several people asked for copies of the presentation. And in other rooms throughout the conference center, similar messages about the need for and process behind strategic communications were being presented by members of BEAC and others. The halls were buzzing with excitement about these concepts, and not just among the communications and outreach professionals.

It's been quite an education for me these past six years. I can now — with almost full confidence — articulate in the ins and outs of the bird plans. But I'll never shake the deadline-driven, make-your-audience-care side of myself. Given that, I urge the bird conservation community to take this momentum and run with it. Let's not let it drag us around in endless planning circles and redundant efforts. Strategic communications work is meant to be implemented, not sit on a shelf gathering dust. We need to let communications fly if we want to reach our bird conservation goals.

## Strategic Communications and the Social-ecological Landscape

*Roxanne Bogart, Wildlife Biologist, U.S. Fish and Wildlife Service*

Bird populations throughout the hemisphere are in jeopardy from a host of human-induced threats that are increasing mortality and decreasing recruitment and reproductive success. The greatest of these threats are habitat destruction and degradation, exacerbated by mortality from pollution, disease, by-catch, collisions with human-made structures, illegal hunting, the wild bird trade, and climate change.

Affecting positive change to landscapes for the benefit of bird populations ultimately requires working with people to alter the human-nature interaction. These changes, however, may not prove sustainable if a host of direct and indirect demographic, sociopolitical, cultural, or economic drivers are reinforcing environmentally adverse behaviors on the larger landscape (see Figure 1). Bird habitat conservation in most cases requires a deeper understanding of the society-nature interaction as a dynamic evolving process in the region of interest, and the development of both biological and communications objectives to alter that interaction to achieve environmental sustainability.

To achieve science-based conservation goals and objectives for birds, conservationists must work with individuals and institutions, as well as legal and social systems, through an effective process of strategic communications. While social systems have webs of positive and negative feedbacks that are structurally similar to ecosystems, the feedback loops are less tangible and predictable, and can be ignored or misconstrued because they are socially mediated. Numerous such detrimental social feedbacks currently threaten the sustainability of ecosystems. Transformation to a sustainable society can only occur through close collaboration of natural and social scientists to develop creative ways to insert ecologically beneficial feedbacks into socially embedded feedback loops.

As agents of change, conservationists must create shifts in perspective by understanding the attitudes, motivations, and decision-making processes of the social systems and people of interest. Only then can conservationists discover how to incorporate ecological feedbacks, which remain unheard, into the social system. Communications plays a critical role in translating ecological information into social systems.

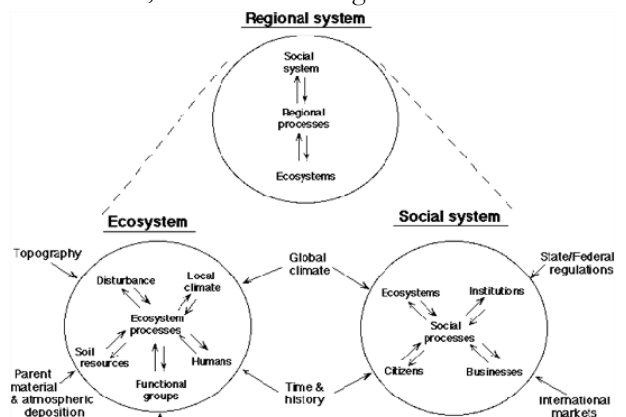


Figure 1

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The conservation of natural resources is inextricably tied to public attitudes, opinions, and behaviors, and involves a host of complex challenges and increasing numbers of stakeholders. Thus, conservation solutions lie with interdisciplinary problem-solving involving economics, policy-making, sociology, psychology, and organizational behavior, with strategic communications and education playing a key role in implementation.

Strategic communications requires in-depth research and planning. It is integrated into the full scope of a program, and requires that issues be defined in both scientific and social terms. It triggers changes to the social system of the target audience by introducing an innovation in a large group of potential customers that motivates them to practice a new behavior or approach to management. It requires that audiences be involved in planning, and that interventions be based on their values. It is customer-driven and requires social marketing techniques which are distinct from those of commercial marketing.

Conservationists and wildlife biologists expend significant effort to understand the ecological requirements of bird populations, and develop habitat objectives to achieve desired population responses. Scientific findings need to be converted into meaningful and practical outputs and programs that can influence the behavior of people and inform conservation policies and practices.

Strategic Habitat Conservation Elements	Communications Process Elements
Identify priority bird species or populations	Identify target human audiences or population segments
Develop population goals and objectives	Develop behavior goals and objectives
Assess current state of species	Assess audience and population segments
Identify limiting factors of populations	Identify barriers and benefits to behavior change
Describe population-habitat relationships	Describe population–nature interactions
Develop species-habitat decision support tools	Develop communication tools for behavior change
Formulate habitat objectives	Formulate specific objectives for behavior change
Deliver management/conservation activities <i>(Communications is a major component)</i>	Deliver communications plan with strategies and tactics
Monitor effects of management on species	Monitor effects of communications strategies and tactics on target audiences
Evaluate program accomplishments	Evaluate program accomplishments

**Table 1. The Fine Scale Elements of Strategic Habitat Conservation and Strategic Communications**

To effectively carry out the habitat objectives identified in bird conservation plans, strategic communications must be an integral part of conservation delivery. The communications process entails planning, implementation, and evaluation — steps that are functionally analogous to those of conservation science.

The U.S. Fish and Wildlife Service and the U.S. Geological Survey are currently promoting a Strategic Habitat Conservation (SHC) approach, which entails biological planning, conservation design, conservation delivery, and monitoring and research. Communications involves a similar process. Moreover, the fine scale elements of both processes are analogous (see Table 1). Without communications, the valuable products of SHC may never achieve their intended purpose of efficiently directing conservation and management to restore declining bird populations.

To secure a future for North America’s declining bird populations, greater fiscal and human resources are required to develop and carry out strategic communications programs. Science alone will not

save these species. Moreover, scientists and communication specialists need to work together to ensure that their efforts are collaborative and complementary. Only through an interdisciplinary approach that seeks to understand and address real world problems across the social-ecological landscape will conservationists be able to successfully meet the complex challenges facing land and resource conservation in the 21st century.



## Communications Case Study: Playa Lakes Joint Venture

*Debbie Slobe, Communications Team Leader, Playa Lakes Joint Venture and Roxanne Bogart, Wildlife Biologist, U.S. Fish and Wildlife Service*

The [Playa Lakes Joint Venture](#) (PLJV) is a non-profit partnership of federal and state wildlife agencies, conservation groups, private industry, and landowners dedicated to conserving habitat in the Southern Great Plains for the benefit of birds, other wildlife, and people. The region largely encompasses the Shortgrass and Central Mixed-grass Prairie Bird Conservation Regions (BCR) 18 and 19.



Mountain Plover. /Doug Chapman

Playas and their watersheds are some of the highest priority habitats for conservation in the region. Playas are shallow, seasonal wetlands that lie in the lowest point of a closed watershed. Most are smaller than 30 acres (12 hectares). Throughout the year, playas provide cover and native forage important to the survival of priority waterfowl, shorebirds, and grassland birds. Playas are the primary source of recharge for the Ogallala Aquifer — a major source of water for agricultural, municipal, and industrial development in the region.

The biggest threat to playas is sedimentation which occurs when rain or irrigation runoff carries loose soils into the playa basin, gradually filling it and increasing the rate of evaporation, thus limiting recharge. More than half of all playas have been buried by sedimentation during the past two to three decades.

The PLJV employs a Strategic Habitat Conservation framework to achieve bird population and habitat goals. This framework includes communications and education as a core element of operation. The PLJV's program elements include: biological planning, conservation design, conservation delivery, policy, communications, research, funding, education, granting, and annual review.

Ninety percent of the PLJV landscape is in private ownership, primarily in agriculture. Thus, landowners and private lands resource managers are the PLJV's highest priority audiences. These people own and work the land, and control, administer, and deliver conservation programs for landowners. These groups make the ultimate resource management decisions that determine the fate of playas. Most conservation programs available to landowners are administered by the U.S. Department of Agriculture Farm Service Agency and Natural Resources Conservation Service, U.S. Fish and Wildlife Service, and state wildlife agencies. These programs are voluntary since there are no state or federal regulatory protections for playas. The agencies must determine how to motivate landowners to participate in their programs.

A primary communications objective of the PLJV for playas is to increase willingness and participation among playa landowners to plant or maintain native grass buffers around their wetlands. Buffers around playas reduce sedimentation and restore habitat for priority birds. Farmers and natural resource agencies can be either allies or bottlenecks for delivery of buffers around playas.

The PLJV carried out landowner focus groups in four states in 2004 and a multi-state High Plains Landowner Survey in 2006 to assess landowner awareness and attitudes and participation in conservation programs. Based on this research they uncovered important information about how landowners think. Approximately 64% thought playas were positive; 28% were highly willing to plant buffers and 48% were moderately willing to plant buffers; and the Ogallala Aquifer was their primary resource concern, with half unaware that playas recharge the Aquifer. The lack of landowner knowledge of the importance of playas to the Ogallala Aquifer, revealed a significant need for communications and outreach tools with real potential for behavior change.

Based on audience research, the PLJV determined that local farm radio was the most-used media among farmers in the region, and thus is using radio to convey messages to increase landowner awareness, concern,

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and willingness to plant buffers and other bird conservation actions. The PLJV produces “Playa Country”, a weekly four-minute radio program aired on 31 public and farm radio stations covering the entire region. They intend to expand coverage to more stations in the future.

The PLJV also produced an educational film about playas, with the objective of “putting a playa film into the hand of every playa landowner.” To date, over 4,500 copies of the film have been distributed to landowners, program managers and field staff, and politicians, and more than a dozen TV broadcasts of the program were aired. The PLJV intends to solicit the help of the Farm Service Agency to ensure that all playa landowners receive a copy. An evaluation of the video’s effect on landowner attitudes pre- and post-film viewing indicated a near doubling of playa awareness and a three-fold increase in playa concern.



The 2006 High Plains Landowner Survey findings are being correlated with biological planning data to estimate how closely the PLJV might reach habitat and population goals if it had the capacity to serve all willing landowners. For example, if all 28% of highly willing landowners plant native buffers around their playas through the Conservation Reserve Program (CRP), what would be the progress toward bird population goals?

Assuming there are 60,000 playas in the entire region, one playa per landowner per field, an average playa size of 9.5 acres, and a 1:3 buffer to playa ratio, the PLJV calculated a conservation result of 159,000 wetland acres (64,346 ha) and 478,800 upland acres (193,768 ha) if 28% of all playas were conserved. For individual priority landbird species, the PLJV combined a 30-year population loss estimate, based on Breeding Bird Survey BCR trend data, and a current carrying capacity estimate, based on density and acreage information, to determine population objectives. Assuming a 1.376 Cassin’s Sparrows per acre of CRP planted to native grass density in Texas, the buffered acres translate into a 15% increase in Cassin’s Sparrow toward its objective.

The PLJV translates continental population goals for shorebirds and waterfowl into regional habitat objectives, expressed as shorebird and duck use-days per acre. The results are habitat or area-based estimates of the energetic carrying capacity for various species guilds. By comparing the energetic carrying capacities of restored acres and habitat objectives, the PLJV determined that if 28% of playas were buffered with native grass, this would provide habitat for 35% of the migratory shorebird population goal and 40% of the waterfowl objective, assuming the concomitant restoration to a well-functioning playa. The better the PLJV can estimate this link between landowner attitudes and conservation, the better it can estimate how much communications is enough to drive habitat conservation.

The PLJV’s attitude research has shown that playa landowners are generally pre-disposed to conserving their playas. So what is inhibiting landowners from buffering their playas? The major hurdles are institutional and programmatic. Issues include the need for increased capacity, education, policy changes, and internal and external communications.

Limiting factors are program dependent. The most pressing programmatic limiting factors of the CRP with regard to conserving playas in the PLJV include the following: (1) many counties have already reached the 25% cap for CRP acres; (2) there is a lack of adequate incentive payments for playas; (3) the Environmental Benefits Index does not score playas high enough; (4) land must have been cropped 4 out of the past 6 years, eliminating many playas which are un-farmable; (5) inconsistent buffer prescriptions allow for much smaller, non-native buffers; and (6) USDA field staff lack knowledge about playas and the important role of CRP in playa and bird conservation. These policies are negative feedbacks to playa buffer creation.

The PLJV hired a conservation policy director to address these institutional limiting factors and other legal and social-economic issues and policies that affect playa conservation. Understanding how to best influence landowners through institutional and policy changes and related social-economic forces that affect their decision-making are the vital next steps. *For more information, contact Debbie Slobe at [debbie.slobe@pljv.org](mailto:debbie.slobe@pljv.org)*

## Conservation Through Education and Outreach in the Colorado River Delta, Mexico

*Jennie Duberstein, Education and Outreach Coordinator, Sonoran Joint Venture and Osvel Hinojosa-Huerta, Director of the Water and Wetland Conservation Program, Pronatura Noroeste*

The Sonoran Joint Venture (SJV) is a partnership of diverse organizations and individuals in the southwestern United States and northwestern Mexico that share a commitment to bird conservation. The mission of the SJV is to protect, restore, and enhance bird populations and habitats in this binational region through collaborative partnerships. A science-based, dynamic process of adaptive conservation planning and delivery guides the SJV's activities.

Education and outreach is a critical part of conservation delivery in the SJV. This article describes an innovative education and outreach project that directly involves local communities in on-the-ground conservation activities.

The SJV's diverse region includes southern Arizona and southern California in the United States and the Mexican states of Sonora, Sinaloa, Baja California, and Baja California Sur, as well as the Gulf of California and its associated islands. This large area is home to an impressive diversity of birds and habitats and an equally impressive array of conservation issues.

As part of the SJV Conservation Plan, partners have designated regional Focus Areas — locations that have significant bird populations and habitat values, and/or the potential to be restored to a condition that supports bird populations and contributes to SJV conservation objectives. These are places on the landscape where partners can concentrate conservation activities and mobilize people to improve bird habitat. One such Focus Area is the Colorado River Delta.



Aerial view of the Colorado River Delta, Mexico. /Osvel Hinojosa-Huerta

The Colorado River Delta, where the river meets the Gulf of California, is one of the most biologically diverse regions in the southwestern United States and northwestern Mexico, particularly for birds. Located on the western edge of the Sonoran Desert and along the common border of Baja California and Sonora, the Delta faces many environmental, social, and economic pressures. Originally comprising approximately 780,000 hectares, about the area of Rhode Island, the Delta has been reduced to one-tenth its former size due to upstream development and water diversion.

The Delta is one of the most important areas for bird conservation within the Sonoran Desert Ecoregion. It provides habitat for over 300,000 wintering waterbirds, and is a critical stopover site for over 100 species of

Neotropical migratory landbirds. In addition to being a SJV Focus Area, it is recognized as a Wetland of International Importance by The Ramsar Convention, an Important Bird Conservation Area in Mexico (AICA), and a priority wetland under the North American Wetland Conservation Act.

Despite widespread recognition of the importance of the Delta region to birds and other wildlife, it faces a number of challenges. The main causes of ecological degradation in the Delta are changes in water and sediment movement brought on by impoundments and diversions upstream on the river.

Even with a decline in both the quantity and quality of available habitat, the Colorado River Delta continues to provide refuge to a great diversity of wildlife, and holds many opportunities for wetland restoration. Small instream flows, combined with habitat restoration and management of agricultural drainage, can restore and maintain immense expanses of habitat for waterfowl, waterbirds, marshbirds, and riparian landbirds.

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SJV partners have engaged in a wide range of activities and programs to help conserve and restore this important area. One particularly interesting example is being led by the Mexican non-profit organization Pronatura Noroeste, in conjunction with a local community watershed association, the Asociación Ecológica de Usuarios del Río Hardy y Colorado, (AEURHYC), other partners, and with support from the SJV.

Pronatura Noroeste is carrying out initiatives to maintain and enhance marshlands, riparian forests, and open water areas that provide critical habitat for over 120 species of birds in the floodplain of the Colorado River in Mexico. In priority areas in the Delta, the organization is using a combination of restoration methods, including removing exotic vegetation, planting native trees, and reestablishing freshwater flows. Recently the group received funding from the SJV for an innovative education and outreach effort that increases the effectiveness of these conservation approaches by directly involving area teachers, students, and residents.

For more than ten years, Pronatura has been working with rural schools in the Delta using education as a tool to increase the community's knowledge and appreciation of the importance of local wetlands in the global migration of birds. Without community participation in wetland conservation and education, it is impossible to effectively manage these habitats. In the last two years, Pronatura has taken teachers and students to the next level by involving them directly in restoration activities. This effort combines direct conservation action and environmental education.

Removal of exotic vegetation and planting native trees (e.g., cottonwood, willow and mesquite) are reasonable projects for students and teachers to undertake. Pronatura and AEURHYC have used their expertise to help train teachers and students in restoration and reforestation techniques. Through their hands-on involvement, students and teachers have been able to transform enthusiasm and interest for conservation into direct action tied closely to SJV conservation objectives.

This project directly supports objectives laid out in the Conservation Plan, including restoration of destroyed or degraded sites and prevention of human disturbance. Improving the habitat also contributes to population goals for a number of bird species that depend on the Delta at some point in their life cycles. By directly linking education and outreach efforts to conservation objectives, the SJV and its partners have been able to contribute to the *long-term* conservation of a priority site.

Instead of just raising awareness of conservation issues or undertaking projects without community involvement, the SJV and its partners have created opportunities for area residents to learn about conservation *and* directly contribute to projects that improve habitat and advance bird conservation in the Colorado River Delta.

Read more about the work of the Sonoran Joint Venture and its partners at <http://www.sonoranjv.org> or contact Jennie Duberstein at [jennie\\_duberstein@fws.gov](mailto:jennie_duberstein@fws.gov). Learn more about the work of Pronatura Noroeste at <http://www.pronatura-noroeste.org>.



With support from the Sonoran Joint Venture, AEURHYC, and others, Pronatura is involving teachers and students in removing exotic vegetation and planting native trees in the Delta region, directly contributing to SJV objectives. /Meredith de la Garza-Treviño

## The Junior Duck Stamp Program: Teaching Conservation Through the Arts

*Jill Shirley, Communications Coordinator, Central Valley Joint Venture*

The [Central Valley Joint Venture](#) (CVJV) is a self-directed partnership consisting of 21 state and federal agencies and private conservation organizations. This coalition works toward the common goal of providing for the habitat needs of migrating and resident birds in the Central Valley of California.

The CVJV was established in 1988 as a regional partnership focused on the conservation of waterfowl and wetlands under the North American Waterfowl Management Plan (NAWMP). Because of its importance to wintering waterfowl, the CVJV was one of the original six joint ventures established under NAWMP. Like other joint ventures, it has since broadened its focus to the conservation of habitats for other birds, consistent with major national and international bird conservation plans and the North American Bird Conservation Initiative.

As a self-directed partnership, the Management Board of the CVJV is empowered to make its own decisions about its particular priorities. While priorities have evolved over the years, one thing that has remained consistent is a belief in the importance of communication, education and outreach. The CVJV believes that without such efforts the CVJV cannot generate the kind of public and political support necessary to accomplish its conservation mission. To that end, it has continually sought opportunities to extend its reach, deliver its message, and connect with the public in creative and meaningful ways.



Lydia Han won California's 2008 Jr. Duck Stamp Competition and placed second nationally. /CWA

The [Junior Duck Stamp](#) (JDS) program has proven to be a valuable investment of CVJV resources because it has provided an opportunity to speak to an audience that wouldn't ordinarily be listening or responding to a conservation message.

The [Federal Junior Duck Stamp](#) program is a national conservation and education program tailored to students in grades K-12. Teachers use curriculum to conduct classroom activities relating to conservation, wildlife art, and wetland-related topics. This unique program is a non-traditional pairing of art and science that spans cultural, ethnic, social, and geographic boundaries to promote awareness of our nation's natural resources. It helps students tie together lessons on animal form and function, plant science, observation, wetland habitats, and more. In the visual arts, students practice sketching, drawing, painting, and composition.

In California the artwork is judged in four age groups: Grades K-3, 4-6, 7-9, and 10-12. Three first place, three second place, three third place, and 16 honorable mention winners are chosen from each group. Winning designs receive plaques, savings bonds, art supplies, and various other awards from the sponsors. All winners receive ribbons and certificates from the U.S. Fish and Wildlife Service, and all entries receive participation certificates. California's Best of Show is entered into the national competition to select the 2008-2009 Federal Junior Duck Stamp. This year's winner was Lydia Han of San Jose who placed second in the national JDS competition. The 100 winning California designs are now part of a display that will travel throughout the State for one year.

In California, the contest is directed by the U.S. Fish and Wildlife Service's Sacramento National Wildlife Refuge Complex and is sponsored by the California Waterfowl Association, the CVJV, and its many partners. At the end of the competition, many original drawings are chosen to be featured on the California JDS calendar. Each page of the calendar features artwork and a particular conservation message. The California Department of Water Resources, a strong supporter of the JDS program and CVJV Management Board member, pays for the printing. Calendars are then distributed to our many partners and Management Board members for distribution within their agencies and organization's membership.

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Florida piloted the first local contest in 1989. California got involved as the second state in 1990. The program grew rapidly, and now all states and the District of Columbia participate. In California, the program began with the efforts of a Beverly Hills artist and staff at Gray Lodge Wildlife Area, a Department of Fish and Game facility north of Sacramento in Butte County.

In 1992, the first sheet of junior duck stamps was printed, and it included nine state Best of Show winners from 1991 and 1992. After that, a national competition was instituted, with the top winning art printed as a stamp and sold to raise funds for conservation education.

The Junior Duck Stamp program is an important component of the larger CVJV mission because it helps us to reach — and teach — the next generation of land stewards using a medium that they already understand. They do not have to know about biology. They do not have to have seen a wetland. The conservation message that is integrated into the contest criteria helps the participants to think more deeply about what they're doing and why it's important.

The JDS is not an art program; it's teaching conservation through the arts. By the end, students are able to move from understanding to expression, while we plant the seeds of a lasting conservation ethic.

*For more information, contact Jill Shirley at [jycommunications@yahoo.com](mailto:jycommunications@yahoo.com).*

## Communicating with Partners about Wetland Restoration in a Time of Climate Change

*Caroline Warner, Public Outreach Coordinator, San Francisco Bay Joint Venture*

As one might suspect, most of us living and working in the San Francisco Bay Area of California stopped debating whether or not climate change is happening a while ago. We have a practical and primal motivation for this: as the name of our region implies, the nine counties of the [San Francisco Bay Joint Venture](#) (Joint Venture) about the Bay and/or Coastal waters, giving a potent urgency to not only pay attention to the projected impacts of climate change but also to plan for them.

Estimates of a 55-inch sea level rise by 2100, predicted shifts in salinity content and fresh water flows, and an observable increase in the severity of storms are just a few of the headlines giving credence to the need for such planning. At our annual work plan meeting in October 2007, the Joint Venture's Management Board requested we develop a white paper of recommendations for (and by) our partners regarding the protection of wetlands in an era of climate change.

Even though we are geographically small in comparison to other bird habitat joint ventures, we have a broad network of partners — close to 100 organizations and groups — as well as universities and other organizations not affiliated with our Joint Venture, who are also concerned about the impacts of climate change on our regional landscape. Whether it is modeling the impacts of sea level rise, predicting the likely migration of habitats and birds and other wildlife, determining the carbon sequestration rates of various wetland habitats for possible inclusion in the California Climate Action Registry, or mapping changes in tides to determine sediment loads, there is a lot to keep track of.



San Francisco Bay National Wildlife Refuge. //John and Karen Hollingsworth.

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*The North American Bird Conservation Initiative (NABCI) is a coalition of organizations and initiatives dedicated to advancing integrated bird conservation in North America.*

*The vision of NABCI is to see populations and habitats of North America's birds protected, restored, and enhanced through coordinated efforts at international, national, regional, state, and local levels, guided by sound science and effective management.*

*The goal of NABCI is to deliver the full spectrum of bird conservation through regionally based, biologically driven, landscape-oriented partnerships.*

*The All-Bird Bulletin is a news and information-sharing publication for participants of NABCI.*

*For subscription or submission inquiries, contact the Editor, Roxanne Bogart, U.S. Fish and Wildlife Service, 802-872-0629 ext. 25 or [Roxanne\\_Bogart@fws.gov](mailto:Roxanne_Bogart@fws.gov). To download back issues, visit <http://www.nabci-us.org/news.html>.*

*The All-Bird Bulletin publishes news updates and information on infrastructure, planning, science, funding, and other advancements in the field of integrated bird conservation and management. Include author's name, organization, address, telephone and fax numbers, and e-mail address. Pictures are welcome but not necessary.*

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Indeed, this became one of three main roles for the Joint Venture in the development of the white paper: To coordinate and convey a comprehensive understanding of Bay Area activities and research relating to wetland habitats, climate change, and impacted species. In so doing, we also are able to identify data gaps and needed science, and in turn build a case for additional funding and support for our partners' projects. Our partners benefit from these communications, ultimately have a better understanding of their role in the big picture, and continue to participate in the dialog so that the document remains current and useful.

In 2003, Joint Venture partners acquired over 16,000 acres of historic salt ponds for restoration in the South Bay with a mixture of state, federal, and private funding. The planning process included various stakeholder meetings over the years, and starting in 2005, an occasional comment would come up about sea level rise and the concern that money would be thrown away on a restoration project that might soon be under water. In 2007, the project managers added a discussion of climate change to their Environmental Impact Study/Review in response to increasing questions of this kind. More recently, a highly placed Administration source was heard saying we shouldn't put any more money into coastal wetland restoration with sea level rise on the way.

The South Bay salt pond project team responded with a document with three main messages about the value of wetlands: wetlands help with flood control; tidal marshes grow as sea level rises; and tidal marshes capture carbon. With much of the funding coming from California taxpayers, it is crucial that our restoration work is understood and valued by the citizenry on up to the Legislature. It is clear that this is going to be an ongoing educational push that can only be realized through direct and informed communication.

No doubt the Joint Venture white paper will also be a spring board for developing an outreach strategy that will extend beyond the internal audience of our Joint Venture to the rest of the Bay Area community. In fact, we are already using it as the foundation for a presentation at the Association of Wetland Managers meeting in Portland, Oregon in September. Perhaps it will even find its way into the hands of those who still argue about whether or not climate change is happening and convince them that there are real benefits—both economic and environmental—to incorporating information about climate change in their plans and decisions about how to manage our environment, particularly our wetlands.

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Western Grebe on nest. /Tim McCabe