

THE WESTERN HEMISPHERE SHOREBIRD RESERVE NETWORK

J.P. Myers, P.D. McLain, R.I.G. Morrison, P.Z. Antas, P. Canevari, B.A. Harrington, T.E. Lovejoy, V. Pulido, M. Sallaberry and S.E. Senner

Myers, J.P., McLain, P.D., Morrison, R.I.G., Antas, P.Z., Canevari, P., Harrington, B.A., Lovejoy, T.E., Pulido, V., Sallaberry, M. and Senner, S.E. 1987. The Western Hemisphere Shorebird Reserve Network. *Wader Study Group Bull.* 49, Suppl./IWRB Special Publ. 7: 122-124.

The Western Hemisphere Shorebird Reserve Network (WHSRN) is a system of sites important to migratory shorebirds. The network is wholly voluntary and depends on local involvement including land and wildlife managers. The network began in the early 1980s and was joined in 1985 by the International Association of Fish and Wildlife Agencies (IAFWA), bringing a unique collaboration with WWF-US of public and private wildlife groups. Two reserve categories are recognised: hemispheric sites (>250 000 birds or >30% of the flyway population of a species) and regional sites (>20 000 birds or >5%). Twenty-one US state wildlife agencies have so far made formal commitment to WHSRN, and the Peruvian forest agency INFOR has nominated sites. The speed of advancement of the network is highly encouraging and we are optimistic for the future growth of the network and its use as a means of safeguarding sites for migratory shorebirds.

J.P. Myers, Academy of Natural Sciences, 19th and the Parkway, Philadelphia, PA 19103, U.S.A.

P.D. McLain, Division of Fish, Game & Wildlife, CN 400 Trenton, NJ 08625, U.S.A.

R.I.G. Morrison, Canadian Wildlife Service, 1725 Woodward Drive, Ottawa, Ontario, Canada K1A 0E7.

P.Z. Antas, CEMAVE, Caixa Postal 04/034, Brasilia DF CEP 70 000, Brasil.

P. Canevari, Admin. Parques Nacionales, Av. Santa Fe 690, 1059 Buenos Aires, Argentina.

B.A. Harrington, Manomet Bird Observatory, Manomet, MA 02345, U.S.A.

T.E. Lovejoy, World Wildlife Fund - US, 1255 23rd Street NW, Washington DC 20037, U.S.A.

V. Pulido, Direction de Flora y Fauna Silvestre, INFOR, Av. Santa Cruz 734, Jesus Maria, Lima 11, Peru.

M. Sallaberry, Museo Nacional de Historia Natural, Casilla 787, Santiago, Chile.

S.E. Senner, Hawk Mountain Sanctuary, Rte 2, Kempton, PA 19529, U.S.A.

The Western Hemisphere Shorebird Reserve Network (WHSRN) is a voluntary system of sites important to migratory shorebirds. The network offers support to local wetland conservation initiatives by focusing international attention on local challenges. The WHSRN began with research sponsored by the Canadian Wildlife Service Latin American Program and World Wildlife Fund-US's program for the conservation of migrant birds in the Neotropics (Morrison 1983, Myers 1983). Key guidance on its implementation has come since 1985 through collaboration with Wildlife Agencies.

The basic concept for a reserve network lies implicit in conservation problems faced by shorebirds (summarized in Myers *et al.* 1987). Shorebirds in the Western Hemisphere depend upon the continued viability of critical environments along the chain of migration and wintering sites extending from the Arctic to Tierra del Fuego. Disruption of a single link risks the entire system. The need for an international network emerges naturally from this perception of shorebird conservation needs.

Other international efforts focus on wetland conservation, especially the Ramsar Convention (Lyster 1985, Smart 1987). The WHSRN complements these existing efforts by adding a powerful and explicit message to wetland conservation efforts: that protected wetlands form a critical migration chain linked by the movements of migratory birds. This concept has intuitive, public appeal - a warm body argument - lacking in the other efforts, and it

therefore offers an effective medium for increasing public perception of conservation problems in distant wetlands.

Hence if used effectively and in concert with existing efforts, WHSRN should contribute to conservation initiatives for specific sites. It may even increase the likelihood of Ramsar acceptance by nations who have not yet signed. Additionally, existing conventions operate at the level of national government, even though land managers affecting wetland decisions can be found in all levels of government, as well as in non-government conservation organizations and in the private arena. As developed below, WHSRN unites elements from all these sectors, expanding the scope and the flexibility of the conservation effort.

Finally, as work commenced on WHSRN, Ramsar seemed hopelessly bogged down in the US, opposed by groups concerned about their local autonomy in land management. Waiting for progress with little guarantee of advance seemed ill-advised in an era of increasing threats to wetland habitats.

Two basic premises underlie the WHSRN's approach. First, local involvement is essential and must include land and wildlife managers. Local residents, be they from Louisiana, California, Santiago, Caracas, or wherever, will remain at the sites long after any jet-setting waderologist has left the scene for other staging areas. Local residents ultimately will carry out local conservation initiatives and hence must participate fully in identifying

the sites and developing the conservation plans.

The network depends upon involving those people in wildlife agencies, park systems, governments, and organizations who own and manage wetlands. Collaboration and support from (and for) local conservation groups is essential also, but it is not sufficient.

The second principle underpinning WHSRN is that the system is wholly voluntary. Membership involves no commitment nor obligation. The network exists to support local conservation initiatives. The support comes from the international recognition provided by participation in an international system. Participants are encouraged to solicit information or guidance about management practices from other members of the network and to develop collaborative plans, such as the joint declaration by New Jersey and Delaware described below. As the system evolves, it is hoped that participating organizations will increase the quantity and quality of management practices targeted specifically toward wader habitats and populations. However, all such advances remain voluntary.

Conceptual work on the network began in the early 1980s. Progress toward its implementation began in earnest in 1985 when the program was joined by the International Association of Fish and Wildlife Agencies (IAFWA), through the efforts of P.D. McLain and the New Jersey Department of Fish, Game and Wildlife. The IAFWA counts among its membership the state, provincial and federal wildlife agencies of North America along with associated non-governmental organizations. In a resolution passed at its 1985 annual meeting, the IAFWA pledged to collaborate with the WWF-US in advancing the network. This key step established a unique collaboration of public and private wildlife groups. Most critically, it brought access to precisely the group needed for network implementation, i.e. managers making decisions about how to use wetlands.

To oversee network implementation, a sub-committee was established within the IAFWA Nongame Committee, and a Technical Panel of experts in shorebird biology and conservation was commissioned to advise the sub-committee. Work began thereafter to develop specific plans and recommendations.

In November 1985 New Jersey and Delaware declared the lower estuary of the Delaware Bay the first formal site within the network. This occurred through a joint proclamation by the states' two governors. On the New Jersey side of the bay, mitigation monies from Public Service Electric & Gas Co. established a fund to underwrite acquisition and protection of the key beaches used by horseshoe crabs and staging shorebirds. Delaware Wildlands, a private organization on the Delaware side, moved deftly to acquire a key length of unprotected beach.

Shortly thereafter, the U.S. Nature Conservancy offered to nominate to membership status any appropriate sites within its large system of protected areas. The Virginia Barrier Island Reserve was immediately identified as a suitable area, as it plays an important role in both northbound and southbound migration along the US east coast, in addition to providing scarce habitat for shorebirds nesting on sandy barrier islands.

By the time of writing (September 1986), the Sub-committee and Panel have:



Figure 1. Government and agency involvement in the Western Hemisphere Shorebird Reserve Network by 15 September 1986. Filled areas: formal commitment; Stippled areas: commitment pending or likely. In addition, the US Fish & Wildlife Service has made its National Wildlife Refuge system available to the network.

1. "developed more explicitly the network's structure and operating procedures";
2. elicited biological data from all relevant sources, including primary researchers, wildlife management agencies, and data banks"; and
3. "encouraged appropriate agencies and organizations to join in the effort".

The technical panel recommended criteria by which sites could be nominated for network membership. These recognize two distinct reserve categories, hemispheric and regional sites. Hemispheric sites boast >250 000 birds, or greater than 30% of the flyway population of a given species. Regional sites harbour >20 000 birds or 5% of the flyway population of a given species. A two-tiered structure was recommended because it focused principal attention on the 'mega-sites' of the hemisphere, but at the same time allowed participation of areas valued by local managers and conservationists.

The Sub-committee distributed questionnaires soliciting information from IAFWA members about appropriate sites within their jurisdiction. The questionnaires and accompanying literature also served as information packets allowing the wildlife agencies to assess whether they wished to join. As responses to the questionnaires were returned to the Technical Panel, commitments from agencies began to accumulate.

To date, 21 state wildlife agencies have made formal commitments to participate within the network, while 4 more have indicated tentative interest, including two Canadian provinces (Figure 1). The US Fish and Wildlife Service has endorsed the inclusion of refuges within the National Wildlife Refuge system. Additionally, the Peruvian forestry agency, INFOR, has nominated 5 sites within its boundaries for network participation, and informal interest has been expressed in Chile and Panama.

The nature and manner of several state commitments is especially encouraging. New Jersey's and Delaware's pivotal steps have been described above. Florida has inquired about possible research that its nongame program might undertake to further network progress. Even states without known sites with shorebird concentrations have written to express strong support for the program.

Work continues to involve other states, provinces, and countries. World Wildlife Fund-US and ICBP-Panamerican are helping in various Neotropical countries. Members of the

Technical Panel are working within their own countries to obtain government involvements. Given how far the system has advanced within a single calendar year (since IAFWA involvement began in September 1985), we stand optimistic about the network's future growth.

REFERENCES

- Lyster, S. 1985. *International Wildlife Law*. Grotius Publ., Cambridge. 470 pp.
- Morrison, R.I.G. 1983. A hemispheric perspective on the distribution and migration of some shorebirds in North and South America. In H. Boyd (ed.), *First western hemisphere waterfowl and waterbird symposium*, pp. 84-94. International Waterfowl Research Bureau.
- Myers, J.P. 1983. Conservation of migrating shorebirds: staging areas, geographical bottlenecks, and regional movements. *Amer. Birds* 37: 23-25.
- Myers, J.P., Morrison, R.I.G., McLain, P.D., Antas, P.Z., Harrington, B.A., Lovejoy, T.E., Sallaberry, M., Senner, S.E. and Tarak, A. 1987. Conservation strategy for migratory species: an example with shorebirds (Charadrii). *American Scientist*: in press.
- Myers, J.P. 1985. State of New Jersey invests in shorebird conservation: a million clams for horseshoe crabs. *Wader Study Group Bull.* 45: 37.
- Smart, M. 1987. International conventions on wetland conservation. *Wader Study Group Bull.* 49, Suppl./INRB Special Publ. 7.

