Hard Work Brings Results at Chincoteague

by Amanda L. Avery

A piping plover chick walks the beach at Chincoteague NWR.
USFWS photo

*F*ollowing the 1986 listing of the piping plover *(Charadrius melodus)* as a threatened species, Chincoteague National Wildlife Refuge, like other Atlantic coast refuges, developed an intensive monitoring and management plan for this beach-dwelling species. Implementation of the plan at Chincoteague NWR has yielded some impressive results.

Under the plan, off-road vehicles are prohibited from driving on potential plover nesting grounds on the refuge from March 15 to September 1 each year. In March and April, refuge staff conduct prenesting surveys, which involve searching the beaches for plover arrivals. Later, during the nesting season, biologists observe adult plover behavior. Once plovers display defensive behavior, such as piping and false incubation, the staff observes from a distance using binoculars or spotting scopes to see if the birds return to their nests. Upon discovery, nests are checked every few days to document egg loss. Nest visits increase as the hatch date nears. Monitoring of newly hatched broods is intense for the first 6 to 8 hours of life, but later the broods are monitored only every 2 to 3 days until fledging. Management of piping plovers includes control of predators such as red foxes, raccoons, gulls, and crows.

Despite the increase in monitoring and management efforts from 1988 to 1998, fledgling success continued to fluctuate from year to year and fall short of the 1996 Piping Plover Recovery Plan's recommended rate of 1.5 chicks fledged per pair. Prior to 1999, plover fledge rates at the refuge exceeded the

Right: Chincoteague NWR staff sets up a piping plover nest exclosure.
Photo by Robert E. Wilson

recommended rate only once. Upon review of the previous 10 plover seasons (1988-1998), the major limiting factors on the refuge were found to be weather and predation. While the weather is beyond our control, predation can be managed. If the refuge staff could concentrate its efforts into minimizing the threat from predators, then maybe Chincoteague's piping plover fledge rate could reach the recovery plan's recommended rate on a consistent basis.

During the 1999 season, Chincoteague NWR further intensified its piping plover predator management and increased the amount of time spent monitoring nests and broods. Active trapping of foxes and raccoons on traditional plover nesting sites began in January and continued through July. Rope and "Area Closed" signs placed around plover nesting areas prevented off-road vehicle and pedestrian disturbance at plover nesting grounds from mid-March until the last chick of the season fledged. During the brood season, a staff member conducted avian predator control seven days a week, as gulls were suspected in many cases of lost chicks. Monitoring also increased, with interns being posted at the most vulnerable section of piping plover habitat, the Overwash, from 5:00 a.m. to 10:00 p.m. Interns located broods twice a day and chased gulls and crows out of the nesting area. All other broods on the refuge were located once a day until they fledged.

These intensified efforts came at considerable expense. In order to save money, the refuge hired eight interns for a $100 per week stipend and provided housing. Even so, however, it still costs the refuge $10,000 to run and support the rest of the piping plover program. Fortunately, for the past four years, the Service's Delmarva River/Delmarva Coastal Ecoteam has come to the rescue and provided financial support for this important recovery project.

This new, intensified monitoring approach has benefitted Chincoteague's piping plover program in several ways. The most prominent improvement has been the increased fledge rates. For the past four seasons (1999-2002), the refuge has attained the 1996 Piping Plover Recovery Plan's goal of 1.5 fledglings per nesting pair (Figure 1). Most of this is due to the increased presence of staff and interns for monitoring piping plover nesting areas. This allowed time to concentrate on identifying the causes and times of nest and chick loss. The chance of not being able to locate broods because of movement decreased. If pedestrians and off-road vehicles pass into plover areas, interns and law enforcement can quickly resolve the situation. Because interns remained near plover nesting areas, public education also increased; visitors could inquire as to why sections of the beach were closed and thus learn more about the piping plover.

Adult piping plover
USFWS photo

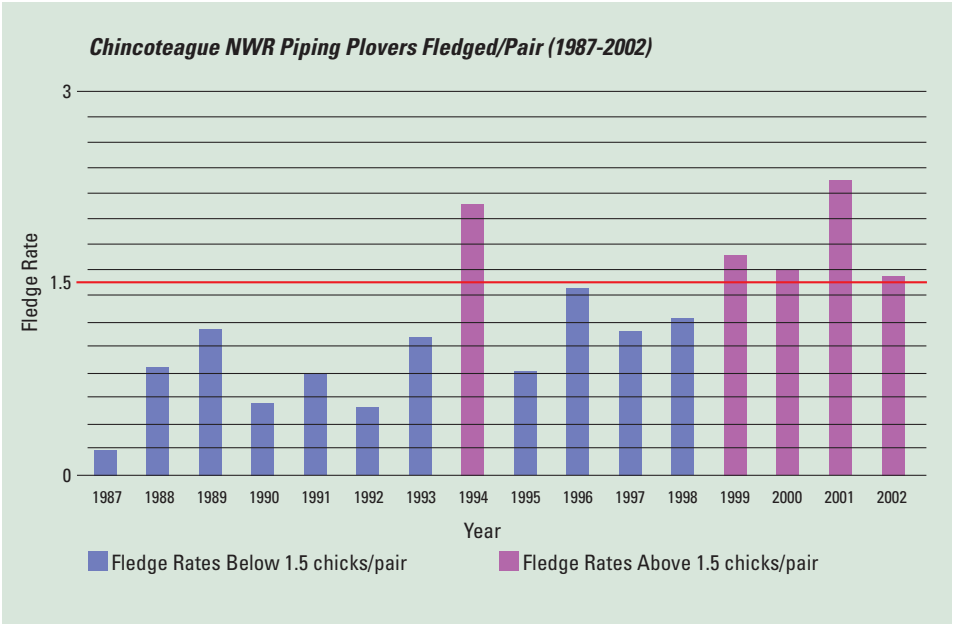

Figure 1: Fledge rates for piping plover chicks on Chincoteague NWR from 1987 to 2002.

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