

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
NORTHERN DIVISION

No. 02:07-CV-00045-BO

DEFENDERS OF WILDLIFE and
THE NATIONAL AUDUBON SOCIETY,
Plaintiffs,
v.
NATIONAL PARK SERVICE; UNITED
STATES DEPARTMENT OF THE
INTERIOR; DIRK KEMPTHORNE,
SECRETARY OF THE INTERIOR; MARY
A. BOMAR, DIRECTOR OF THE
NATIONAL PARK SERVICE; and
MICHAEL B. MURRAY,
SUPERINTENDENT OF THE CAPE
HATTERAS NATIONAL SEASHORE,
Defendants,
and
DARE COUNTY, NORTH CAROLINA;
HYDE COUNTY, NORTH CAROLINA; and
THE CAPE HATTERAS ACCESS
PRESERVATION ALLIANCE,
Defendant- Intervenors.

DECLARATION OF
CONOR MCGOWAN

I, Conor McGowan, under penalty of perjury, depose and state as follows:

1. My name is Conor McGowan. I reside in Columbia, Missouri. I am currently a PhD candidate studying the effect of incidental take on endangered species at the University of Missouri. In this position, I research the effects of water management in the Missouri River on Piping Plover population growth and abundance in the Great Plains. Prior to being a PhD candidate, I earned a Masters of Science in Zoology at North Carolina State University studying American oystercatchers. I served as a Field Technician for the American oystercatcher productivity monitoring project on Cape Lookout National Seashore during the summers of

2001, 2002 and 2003. I have attached my *curriculum vitae* as Exhibit 1, which more fully discloses my credentials.

2. I have researched and published studies regarding the breeding, banding and the effects of recreation on American oystercatcher (*Haematopus palliatus*). My *curriculum vitae* contains a list of selected publications.

3. I have reviewed the following materials relevant to this case as they pertain to American oystercatcher:

- a. The USGS's Management, Monitoring, and Protection Protocols for American Oystercatchers at Cape Hatteras National Seashore, North Carolina;
- b. The Fish and Wildlife Service's Biological Opinion for Cape Hatteras National Seashore's Interim Protected Species Management Strategy, dated August 14, 2006;
- c. The Fish and Wildlife Service's Amendment to the Biological Opinion for Cape Hatteras National Seashore's Interim Protected Species Management Strategy, dated April 24, 2007;
- d. The summary, Chapter 2, and Chapter 4 of the Environmental Assessment for the Interim Protected Species Management Strategy;
- e. The National Park Service's Finding of No Significant Impact for the Interim Protected Species Management Strategy/Environmental Assessment, dated July 2007;
- f. The Cape Hatteras National Seashore Resource Management Field Summary reports and Beach Access Reports for the 2007 nesting season at Cape Hatteras National Seashore; and
- g. The complaint in the lawsuit Defenders of Wildlife et al. v. National Park Service et al., 2:07-CV-00045-BO.
- h. Novick, J. S. 1996. An Analysis of human recreational impacts on the reproductive success of American Oystercatchers (*Haematopus palliatus*): Cape Lookout National Seashore, North Carolina. M.S. Thesis Duke University, Durham, North Carolina.
- i. Davis, M. B. 1999. Reproductive success, status and viability of the American Oystercatcher. Unpublished M. Sc. Thesis, Department of Zoology, North Carolina State University.

- j. McGowan, C. P. Factors affecting nesting success of American Oystercatchers in North Carolina. Unpublished M. S. Thesis, Department of Zoology, North Carolina State University.
- k. George, R. C. 2002. Reproductive ecology of American Oystercatchers in Georgia. Unpublished M.S. Thesis, Warnell School of Forest Resources, University of Georgia

4. The opinions expressed in this Declaration are based, in part, on my review of the foregoing documents and, in part, on the knowledge, experience, and expertise regarding American oystercatcher that I have gained during my professional career.

5. American oystercatchers generally prefer open sandy beaches and gravel or sand flats that are elevated above the high tide line and have little or no vegetation. They typically forage in intertidal/mud flats and feed on shellfish and marine worms. The birds build nests by making a series of shallow depressions in the sand and choosing one scrape in which to build a nest. They then incubate egg clutches for 24-28 days. Chicks remain in the nest for 1-2 days after hatching, and then actively forage with and are fed by the adult birds. They may forage anywhere from 50-200 m from the nest. When alarmed, young chicks (<10 days) lie motionless, using their cryptic coloration for camouflage. Chicks fledge in approximately 35 days.

6. American oystercatchers are vulnerable to recreational impacts, including ORV, pedestrian and pet impacts in the following ways:
- a. Frequent disturbance of birds attempting to establish territories or nests may cause birds to abandon that site;
  - b. Adult oystercatchers that are frequently flushed from nests may abandon the nest ;
  - c. Chicks, eggs and nests may be destroyed by direct impact from ORVs, pedestrians and pets (dogs and cats);
  - d. Crushing wrack into the sand, precluding its use as cover or a foraging substrate;
  - e. Killing American oystercatchers after they are disoriented by or attracted to ORV headlights and hit by the vehicle;

- f. Trapping bird chicks in deep tire tracks and ruts from which they are unable to escape.

7. I have reviewed in detail the interim management plan that was in effect during the summer breeding season of 2007 (hereinafter referred to as the "2007 Interim Plan"), which was described and approved in the document entitled National Park Service's Finding of No Significant Impact for the Interim Protected Species Management Strategy/Environmental Assessment, dated July 2007 (or "FONSI"). The FONSI cites my 2006 study "Effects of Human Recreation on the Incubation Behavior of American Oystercatchers" as evidence that 300-450 foot buffers are "frequently not required for American oystercatcher nests." This reference to my research over-states my findings and is not fully supported by my data. The purpose of the 2006 study was to determine the relationship between human recreational activity and incubation behavior of American oystercatchers. The study did not address the concept of a buffer distance required to protect American oystercatcher nests from recreational disturbance. It expressly notes that "[w]e were unable to measure the distance from the nests to the disturbance." Therefore, this study cannot support the FONSI's contention that 300-450 foot buffers around American oystercatchers are not required for successful breeding. There are a number of data sources and research projects that found a negative relationship between oystercatcher reproductive success and what is generally termed "human disturbance." On days when there are more people, trucks and ATVs in the park (ie: Friday, Saturday and Sunday) oystercatcher nests are more likely to fail than on days where there are fewer park visitors. Oystercatcher nests in the areas where people, trucks and ATVs tended to congregate (ie: the Light house or the inlet beaches) are more likely to fail compared to nests in more isolated areas of the park. I conclude that just because ORV traffic does not appear to affect incubation behavior, as was discussed in the paper I published in 2006, that does not negate the wealth of other data showing that ORV

traffic and human disturbance negatively affects reproductive success of oystercatchers. Rather, ORVs must affect oystercatcher reproductive success in some other, as of yet unstudied, manner.

8. In my opinion, the 2007 Interim Plan provides inadequate protection for American oystercatchers for three primary reasons. First, there are no pre-nesting closures outside piping plover closures. Because the piping plover population on Cape Hatteras National Seashore has been relatively small and decreasing over the last several years, using piping plover closures as a surrogate for American oystercatchers is inadequate. It leaves valuable potential roosting, nesting and foraging habitat unprotected. This is critical because ORVs and pedestrians, in addition to directly harming bird nests and chicks, may prevent birds from establishing territories or nests outside plover closures. Oystercatchers may avoid areas with human disturbance. Therefore, the birds might not establish territories outside of protected areas. American oystercatcher breeding and foraging habitat includes sandy or gravelly area that is suitable for ORV or pedestrian recreation, which increases the likelihood that birds attempting to establish territories and nests will come into direct conflict with humans if pre-nesting closures are not established. The second important flaw in the 2007 Interim Plan is that it relies extensively on reaction to monitoring observations for nesting and chick protection. Nesting closures are established once a nest is located and a buffer is then established based on the observers' best professional judgment. Without more pre-nesting closures than provided for in the Interim Plan, this system is inadequate. Prior to nest-establishment, the Interim Plan requires twice weekly monitoring of breeding areas used in the last three years by American oystercatchers. With twice weekly monitoring, it is likely that a bird could establish a nest and have that nest compromised or destroyed by ORV or pedestrian recreation before it is located and a buffer is established. Furthermore, the Interim Plan requires a 150-300 foot buffer that

moves with the chicks. This protection is inadequate because American oystercatcher chicks are cryptically colored and highly mobile. Because of their coloration, it is often very difficult to locate chicks without radio tracking. They are also highly mobile and may cover a large area during the day as they move from roosting to foraging habitat. These two factors undermine the protection scheme established by the 2007 Interim Plan. To be successful, such a plan would require multiple trained observers monitoring each American oystercatcher brood multiple times a day each and every day until the chicks fledged. The Interim Plan's requirement that chicks be monitored once daily cannot protect chicks from ORV and pedestrian impacts. The third fundamental error of the 2007 Interim Plan is the absence of any regulation of night-time recreation. At night, American oystercatcher broods forage on the open beach and below the high tide line. They are particularly vulnerable to recreation impacts at night because they are more likely to intersect with ORVs and pedestrians in these areas, those beach users are less likely to notice the birds and the birds are likely to be disoriented by headlights or flashlights as they approach. American oystercatcher chicks may actually run towards bright lights at night, increasing the danger that ORVs pose to chick survival. Without some protection for nightly brood foraging, the Interim Plan is inadequate. If the Interim Plan is maintained for 3-5 years until the Final Plan is in place, the American oystercatcher population on Cape Hatteras National Seashore will likely continue to decline.

9. I have also reviewed in detail the alternative management protocols described in the USGS's Management, Monitoring, and Protection Protocols for American oystercatchers at Cape Hatteras National Seashore (hereinafter, the "USGS Protocols") and in the Environmental Assessment for the Interim Protected Species Management Strategy (hereinafter, the "EA Alternatives"). The USGS Protocols described alternative management protocols of varying

degrees of protectiveness, which the author labeled the “highest degree of protection”, “moderate protection” and “minimum protection.” The EA described four different alternative management protocols of varying degrees of protectiveness, labeled Alternative A (the “no-action alternative, continuation of 2004 management”), Alternative B (the “environmentally preferred alternative, undisturbed area focus”), Alternative C (the “tailored management focus”), and Alternative D (the “access/research component focus/preferred alternative”).

10. In my opinion, the 2007 Interim Plan was weaker than all of the USGS Protocols and all of the EA Alternatives. In my opinion the protocol that most appropriately protects American oystercatchers is USGS Protocol B. This plan is more protective than the interim plan in the following ways:

- a. It enacts pre-nesting closures in nesting areas that have been used in the last 10 years rather than solely relying on piping plover nesting from the previous three years.
- b. The pre-nesting closures are large enough to allow widespread movement of chicks without the threat of ORV casualties.
- c. It provides protection for nests and chicks that is proactive and not reactive. The defined closures and corridors in open portions of the Seashore will be significantly more effective at protecting oystercatcher adults, nests and chicks than the relatively small, shifting closures of the Interim Plan.
- d. Night driving will be restricted in important nesting and foraging habitat. Since oystercatchers are most likely to be harmed by ORV and pedestrian recreation during their beach and intertidal zone foraging, night driving restrictions must be included in any plan.

11. Due to the documented declines in American oystercatchers at the Seashore it is important to put protective measures in place prior to the next breeding season. If the population is allowed to decline in the next several breeding seasons under the 2007 Interim Plan, it will likely delay the establishment of a viable oystercatcher population on the Seashore.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

  
Signature

1/3/08  
Date