

A Eurasian Wryneck specimen from southern Indiana

John B. Dunning, Jr.
Amanda Beheler
Michael Crowder

Department of Forestry and Natural Resources
Purdue University
West Lafayette, Indiana 47907-1159

Steve Andrews

Natural Resources Building
Code 09228
Naval Surface Warfare Center
Crane, Indiana 47522

Ron Weiss

Chipper Woods Bird Observatory
10329 North New Jersey Street
Indianapolis, Indiana 46280

ABSTRACT

In February 2000, a dead bird found by a worker at the Crane Naval Surface Warfare Center in southern Indiana proved to be a Eurasian Wryneck (*Jynx torquilla*), a species recorded only once before in North America. The circumstances of the specimen's discovery and its arrival in Indiana had the makings of an ornithological detective story. Although it is likely that the full story will never be known, we believe that the wryneck was probably transported to Indiana in a shipping container, and that the specimen does not represent a second North American record of a vagrant wryneck. The investigation of the wryneck specimen demonstrates the value of the Internet in researching records of unusual occurrence.

INTRODUCTION

During the winter of 1999-2000, an ornithological mystery unfolded at a military base in southern Indiana. On 16 February 2000, an unusual bird was found at the Crane Naval Surface Warfare Center (hereafter, NSWC Crane), which is a federal facility for the storage and processing of ammunition and supplies for the U.S. Army and Navy located near Loogootee, Martin County, Indiana. On that winter day, Mr. Earl Crowder, an employee at Crane, paused during his daily work routine and noticed a dead bird lying frozen on the ground at the edge of a small woodland clearing. Mr. Crowder, a self-taught naturalist and hunter and a long-time resident of the region, was familiar with most of the bird life of the area and therefore was surprised that he did not recognize the bird.

The dead bird was the size of a thrush and was cryptically patterned in grays and browns. Its appearance reminded Mr. Crowder of a grouse or a nightjar, but the bird was unlike any species he had seen. NSWC Crane is a largely forested landscape with extensive upland and bottomland woodlands, so it was logical that the dead bird might be a forest resident or winter visitor. Mr. Crowder kept the specimen to see if he could get it identified

Mr. Crowder brought the specimen to the attention of Andrews, the

head of the natural resources division at Crane. Andrews also did not recognize the bird, and neither he nor Mr. Crowder could find a good match in the North American field guides present at the natural resource office. Knowing that wildlife faculty and students from Purdue University would be working at Crane in the spring, Andrews placed the specimen in his office freezer. Several months later Beheler, then a Ph.D. candidate in the Department of Forestry and Natural Resources at Purdue, arrived at NSWC Crane to begin her annual field research on Eastern Phoebe (*Sayornis phoebe*). Andrews showed her the specimen, but she also did not recognize it. The details of its discovery were vague, because the name and contact information of the finder had disappeared during the intervening months. Beheler transported the bird to Purdue, while Andrews tried to relocate the individual who found the bird.

By the time Beheler arrived home, she had checked a number of North and Central American field guides to no avail. She called Dunning, a faculty member in her department at Purdue, and told him about the find. When Dunning arrived at the Beheler house 30 minutes later to see the specimen, Amanda and her husband Brian had identified the bird as a Eurasian Wryneck (*Jynx torquilla*) using a European field guide. Dunning concurred with the identification, although neither he nor Beheler had any field experience with wrynecks. Its identification as a woodpecker relative was supported by close examination of the toes, which were zygodactyl. This trait alone eliminated all passerines and members of most other avian families. With an idea of what the bird might be, the next steps were to confirm the identification and determine if it were possible to trace exactly how the bird arrived in Indiana.

IDENTIFICATION

Description of the bird

Our notes on the bird include the following observations, which are keyed to Figures herein. A medium-sized bird (Fig. 1), with plumage mostly dominated by browns and grays in cryptic pattern. Crown and nape mostly gray. Dark streak on side of face through eye; throat and upper breast buffy brown with narrow dark barring (Fig. 2). Barring on breast faded to dark speckling on lower breast and light gray belly. Bill chisel-like. Upperparts mostly gray with flecks of black or dark brown. Very distinctive dark patch on back, triangular in shape but extending as a wide dark line up nape to back of crown (Fig. 3). Rump gray. Wing browner than back with light buff feather tips to some coverts. Scattered upperwing coverts with dark central shaft streak with buff on either side of streak. Primaries with alternating dark brown and buff bands, so folded wing shows a checkerboard pattern (Fig. 1). Tail mostly gray with buff tones, crossed by four thin black lines (Fig. 4). Central rectrices about 55 mm long, not stiffened. Bill and legs dark. Toes curled, but zygodactyl. Toes and claws were undamaged, as were feathers in the wings and tail. No damage to bill. Measurements [taken at Purdue in April 2000 with the specimen still frozen]: culmen from base to tip: 12.5 mm. Bill length from nares to tip 8.5 mm. Bill width at nares: 4 mm. Tarsus: 21 mm. Total body length 168 mm. Wing chord: 86 mm. Compared to biometrics supplied by Andy

Mitchell of Orkney, Scotland, the specimen's wing and tarsus are within the range expected for European birds, but the bill is somewhat short (bill lengths of European birds range 14.8 to 17.4 mm for both sexes; Mitchell, in litt.).

Confirming the identification

To confirm that the bird was a wryneck, Dunning and Beheler posted a notice on IN-BIRD, a computer listserv dedicated to Indiana birding. The notice stated that a dead bird tentatively identified as a wryneck had been found at Crane and requested that anyone with field experience with the species contact Dunning and Beheler. Immediately Weiss, executive director of the Chipper Woods Bird Observatory in Indianapolis, emailed Dunning and offered to post photographs of the specimen on his website and solicit opinions worldwide. Weiss drove to Purdue the next day and videotaped the specimen. He then posted still photos from the video on the Chipper Woods website and solicited comments. Over the next few days, confirmation of the bird as a wryneck was received from researchers in Scotland, Belgium, England, and Malta. In addition to viewing the photographs and offering an opinion, European researchers emailed Weiss photos from identification guides, measurements from published handbooks, and opinions on the subspecific identification. They also offered other information gleaned from personal experience with the species, including plumage variation, molt, age and sex characteristics, and details on typical behavior and movements.

Further information was obtained when Beheler sent the specimen to the Field Museum of Natural History in Chicago, Illinois. John Bates, a researcher in the Field Museum's Bird Division, compared the specimen to those in the museum's collection. Bates (pers. comm.) stated that the Crane specimen had relatively long primaries, indicative of a northern, migratory population. The plumage was very fresh, with no wear, and was as dark or darker than any Field Museum specimen. The Crane specimen also had more extensive rufous tips to the scapulars than seen on the Field Museum skins. The Crane bird did not match skins from Japan, which have more rusty underparts, but was similar in overall coloration to some European skins. The Eurasian Wryneck is quite variable in plumage, however, and Bates did not believe that sufficient information was published on plumage variation in the Eurasian Wryneck to identify a source of origin based on plumage alone.

Species natural history

The Eurasian Wryneck is found over most of Europe (Jonsson 1993) and in Russia, where it breeds in forested lands from the Kola Peninsula to the Sea of Okhotsk as far north as 66° N (Flint et al. 1984). Its preferred habitat is open deciduous woods, parks, and gardens, where they breed in natural cavities or nest boxes (Cramp et al. 1985). When disturbed at the nest, adults will hiss and twist their necks in a snake-like fashion, a behavior that gives the bird its name (Flint et al. 1984). The Eurasian Wryneck is a long-distance migrant that winters in northwestern Africa, India, Pakistan, China, Japan, and parts of southeastern Asia (Flint et al. 1984, Cramp et al. 1985, Hollom et al. 1988, Grimmett et al. 1999). It does not drill into wood for food as do other woodpeckers but instead forages for insects from the bark of trees or on the ground. Its long tongue is adapted to feed on its preferred food of ants and ant pupae (Ehrlich et al. 1994).

The Eurasian Wryneck has been recorded only once in North America. On 8 September 1945, a bird was found in Wales, Alaska (Bailey 1947). It is considered accidental in the Western Hemisphere (A.O.U. 1998).

EVIDENCE ON ORIGIN

With the specimen identified, the next question we investigated was how

the bird might have gotten to NSWC Crane. At this point, the detective story got truly serendipitous. At the base, Andrews had no success relocating the original collector of the specimen. Word spread about the unusual specimen throughout Purdue's Department of Forestry and Natural Resources, and many people came by Beheler's office to see the bird. One person with a particular interest was Michael Crowder, a Master's student in the department who was familiar with NSWC Crane because his father worked there. Shortly after seeing the specimen, Crowder called his father on an unrelated matter and happened to ask if his father had heard about the weird bird from NSWC Crane. His father, Earl Crowder, replied, "You mean my bird?" Mr. Crowder quickly got in contact with Andrews, and additional details about the discovery came to light.

The bird had been found at the edge of a forest clearing in which was located one of the bunkers that serve as the primary storage facilities at NSWC Crane. Mr. Crowder could not find anyone who had worked recently in the bunker area who remembered finding the bird. The bird was not located near the entrance to a bunker (where it might fall if swept out of a container during cleaning) or near any road or parking area.

There are at least two reasonable explanations as to how the wryneck arrived at the location where it was found. It could either be a wild vagrant, or it could have been transported with human assistance (deliberately or inadvertently). A remote possibility exists that someone deliberately brought the bird to NSWC Crane and released it, or that it was an escaped bird from a collection. NSWC Crane is a secure military base, and access to the facility is strictly limited. Personnel working on the site are subject to inspection and strict regulations regarding contraband. Woodpeckers are not commonly kept in captivity, and wrynecks are virtually unknown in the pet trade. Furthermore, the specimen did not show any signs of being a captive bird (worn claws, damaged rectrices or primaries, damage to the bill, etc.). One of the web responders, John Montalto of Malta, pointed out the lack of any signs of captivity visible in the photographs. Montalto has handled Eurasian Wrynecks in migration and has also netted captive birds of various species. He believed that the photographs did not support the idea that the Indiana bird had been a live captive.

If the bird was transported to the base, it was most likely accidentally sealed in a storage container. Most materials handled at NSWC Crane are packaged in large shipping containers. These containers are stored in bunkers at the base and the specimen was found near one of these storage bunkers. Initially, however, evidence suggested that transport in a shipping container was unlikely. As stated above, there was no visible sign that the bird had been in captivity. Base security precautions did not allow us to investigate the recent history of the material stored in the bunker where the bird was found. However, Mr. Crowder was able to confirm that no overseas shipments had been handled in the general area for many months.

Another factor suggesting that the bird was not from a container was the relatively intact appearance of the bird. Shipping containers are not flown by air to NSWC Crane, as there is no airstrip on the facility. Instead, containers are usually loaded and sealed at their site of origin, then placed on a boat and shipped to an American port. From there, containers usually travel by train until they reach NSWC Crane. The entire transport process may take months, and containers may sit in a bunker for additional months or even years before being opened. Any bird caught in an open container and trapped when the box was sealed should have been mummified or decomposed long before the container was opened at NSWC Crane.

The specimen did not appear to be noticeably mummified, and although there was a distinct smell of decomposition while the bird was still frozen, its condition did not seem consistent with months of travel in a sealed box. Thus we entertained other lines of evidence that were con-

sistent with the bird being a wild vagrant.

These speculations became moot when Tom Gnoske of the Field Museum thawed the specimen in an attempt to prepare it as a study skin. He found that it could not be prepared due to an advanced state of mummification. Furthermore, Gnoske discovered that both legs were broken. The mummified condition and broken bones are consistent with the scenario that the bird had been trapped and transported. In addition, Bates pointed out in his analysis that the bird's plumage was fresh. A vagrant that flew from somewhere in Eurasia to central North America should show some wear in its flight feathers. Thus, we believe that accidental transport, presumably from somewhere in Europe, is the most likely scenario for how the bird arrived at NSWC Crane. We will probably never know how it came to the edge of the forest clearing where Earl Crowder found it. Upon conclusion of our studies, Mr. Crowder donated the specimen to the Field Museum (accession number 429139).

If we are correct, the wryneck specimen does not represent as significant a record as it would have been if the bird were a wild vagrant. The record is, however, still interesting. The discovery process demonstrated the usefulness of the Internet for identification of unusual birds. If posted widely, requests for information can yield expert opinions almost instantaneously. Such responses can greatly expand the resources available to individuals seeking to solve these ornithological puzzles.

There have been a number of previous reports of birds and other animals carried by aircraft and boats to North America. A recent example is the report of an Egyptian Nightjar (*Caprimulgus aegyptius*) transported to North America in the landing gear of an airliner (Dove and Heacker 2002). These records remind us that researchers should consider a variety of ways in which birds may be inadvertently transported when unusual specimens are discovered.

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