Band Identification Skills For Non-breeding Piping Plover

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Observing and reporting banded piping plovers is fun and challenging. The two pictures above show the same bird under different conditions: on the left, the band is not visible due to the leg being tucked up in the feathers, on the right, due to poor light conditions, the band appears to be an orange band over metal band, when it actually is a orange/blue split band over metal band.

Band Identification Skills: A Summary

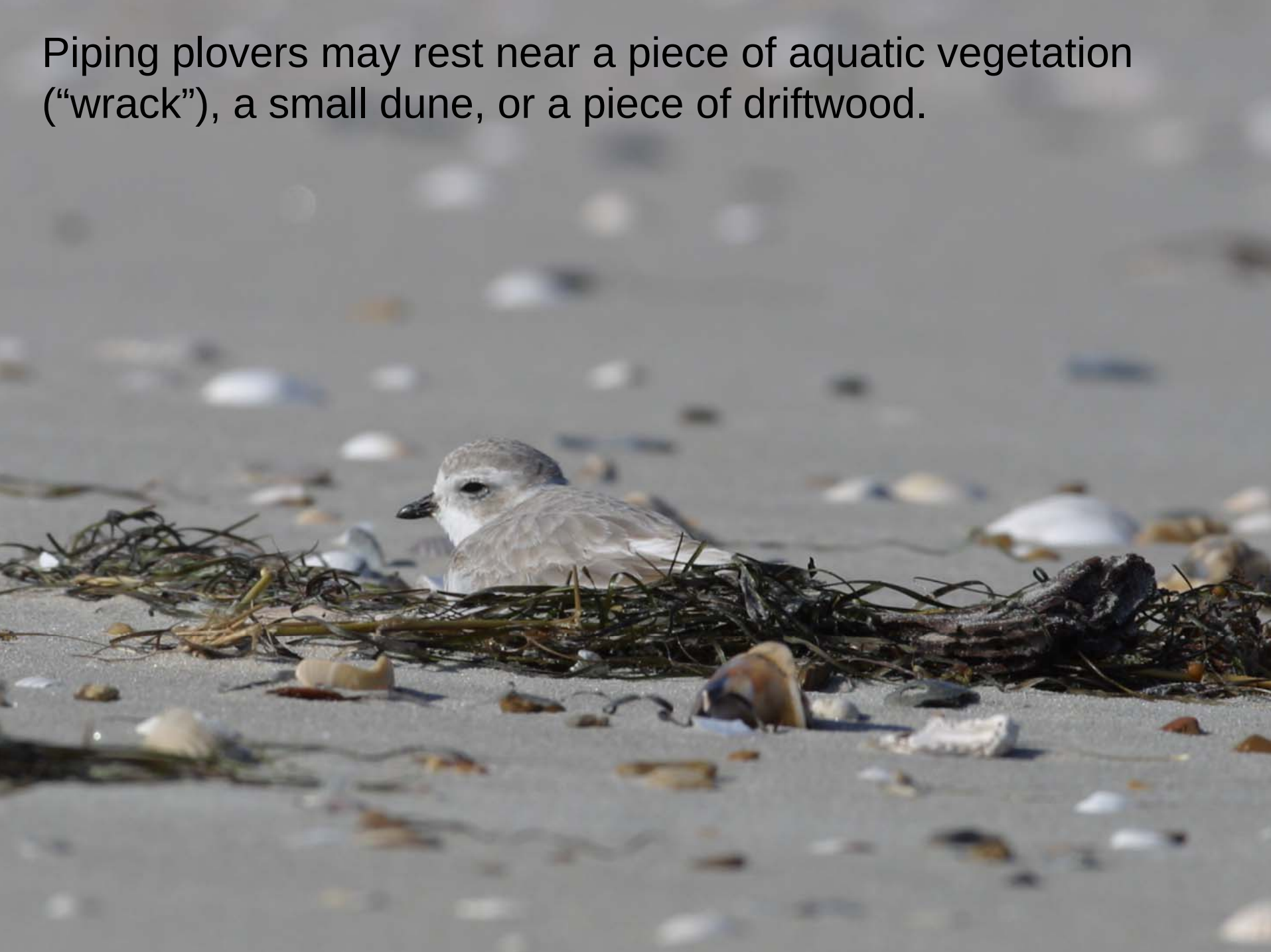
- Become familiar with piping plover habitats and behavior. Use bird posture and vocalizations to help locate and identify piping plovers.
- When planning a survey, consider how tide, wind, and disturbance levels may influence piping plover movements in your area.
- Use light to your advantage. If possible, when you are looking at the bird, keep the sun at your back. If you are doing a survey on a hot day, try to survey during the early morning or late afternoon so you have better light.
- Be aware of other birds in area: disturbing them can cause the piping plover to flush.
- **Piping plovers are threatened - Do not disturb them.** Let them come to you, or approach very slowly. No talking or fast or sharp movements (slowly move your tripod off your shoulder).
- **Use a Scope** – Binoculars usually are not sufficient.
- Be patient: it can take five minutes or more to identify band colors. If the color is difficult to determine, try switching the eye your are using to look through the scope, as one eye may see color differently than the other.
- Carefully look above and below joint; say if you can't see part of the leg. Say what you know and what you do not know.
- Write down date, location, band color and location on the leg (above or below the joint), the bird's activity, and any injuries.
- **Send a band report** to piping.plover@usace.army.mil and appropriate managers or biologists


Food: marine worms, fly larvae,
beetles, crustaceans, and mollusks.

Piping plovers have an upright posture and start-stop feeding movements that help you distinguish them from other birds.

Roosting birds are easily missed; look carefully at spots where birds may be resting.

Piping plovers may rest near a piece of aquatic vegetation (“wrack”), a small dune, or a piece of driftwood.



Survey Equipment

- Binoculars – to scan a large area
- Scope and tripod – to look for bands
- Survey data sheet and clipboard – to write down the date, a general description of the location, GPS coordinates, the bird's activity (feeding, resting, etc.), the habitat type the bird is using (barrier island mudflat, mainland sand beach, etc.), and the band color and location on the leg (left leg top to bottom then right leg top to bottom)
- GPS – to record specific location
- Clothes chosen for weather conditions (hat, gloves, or layers)
- Sunscreen, water, cell phone, and law enforcement or agency phone numbers

Carefully look at other roosting birds: here, a Piping plover is resting behind a Sanderling.

Piping plovers move within their wintering range area in response to tide, weather, and human disturbance. Here, birds have moved out to feed at a flood tidal delta sandbar that is exposed only at low tide.

Be patient. Move very slowly and quietly.
If possible, let the birds come to you.

Preventing disturbance must always be a priority when doing a survey. Minimize the risk of disturbance by carefully watching the plover's behavioral cues: posture, movements, and vocalizations. If the bird responds to you by making "peep low" calls, flattening itself to the ground, walking away from you, or spending too much time watching you, you are too close and you must back away.

Use light to your advantage: if possible, avoid mid-day surveys when the light is harsh, and try to have the sun at your back (below, picture on right) when you are looking at the bird so you will see better detail and more accurate colors.

Distance Affects How You See The Bands

- Pictures of same bands at 50 and 150 feet with 840 MM lens and Canon 20D digital camera
- Note difference between “metal” and plastic bands: plastic bands are smaller, do not reflect light the same way, and the joint looks different
- Note differences between metal bands: metal color band is larger but can fade to silver, while the USGS metal band (bottom left) has numbers
- Some colors – such as light blue and light green – are difficult to distinguish
- Note difference between split and triple split bands; at a distance, they can be difficult to tell apart

Plastic and metal color bands can fade over time and make accurate color identification difficult

The band may be hidden or a band may have fallen off:
bird on left has bands covered by feathers and
bird on right is missing a band on the right leg

Say what you see and don’t see: with this bird, only the part of the leg below the joint is visible.

When you are in the field, you should not try to identify the population (Atlantic, Great Lakes, or Prairie) that the bird is from based on just the following examples, as not all colors or band combinations are shown. Rather, carefully observe and record what you see. Do not guess or try to make a color that you see “fit” a particular color.

Send a report to piping.plover@usace.army.mil
and the scientists will identify where the bird is from and let you know. Promptly sending in the report can increase the chance that exchanges between the observer and scientist can resolve any ambiguities.

Many thanks to those scientists, managers, non-profit organizations, volunteers, and others who are working on conservation efforts for piping plovers!

Canada Great Plains: note white “flag” (a band with a tab sticking out). These birds also can have a black flag


Canada Great Plains: left leg white plastic band (not a flag) above joint, right leg orange plastic over metal band below joint

West Hampton Dunes, NY: a plastic band, above the joint, on each leg


Great Lakes – left leg red plastic band over metal band,
right leg orange plastic over green plastic (“RXOG”)
For additional information on Great Lakes banded birds,
go to http://www.waterbirds.umn.edu/pip_banded.html

Great Lakes Brood Marker

Atlantic Canada

Two colors and letters, one above the other

Atlantic Canada, old style: letters are next to each other, but one color is above the other (colors are faded). Note how the color band (right leg) is taller than the USGS metal band (left leg).

Metal (USGS) Band

Metal Band ID: 1401-78363

- *Not a sure thing*: depends on individual bird's tolerance to the photographer, due to need to be very close.

- Photographer must be very careful to prevent disturbance.

- Sand or mud on band may block numbers

- Take photographs as bird turns to show all numbers; know where band joint is

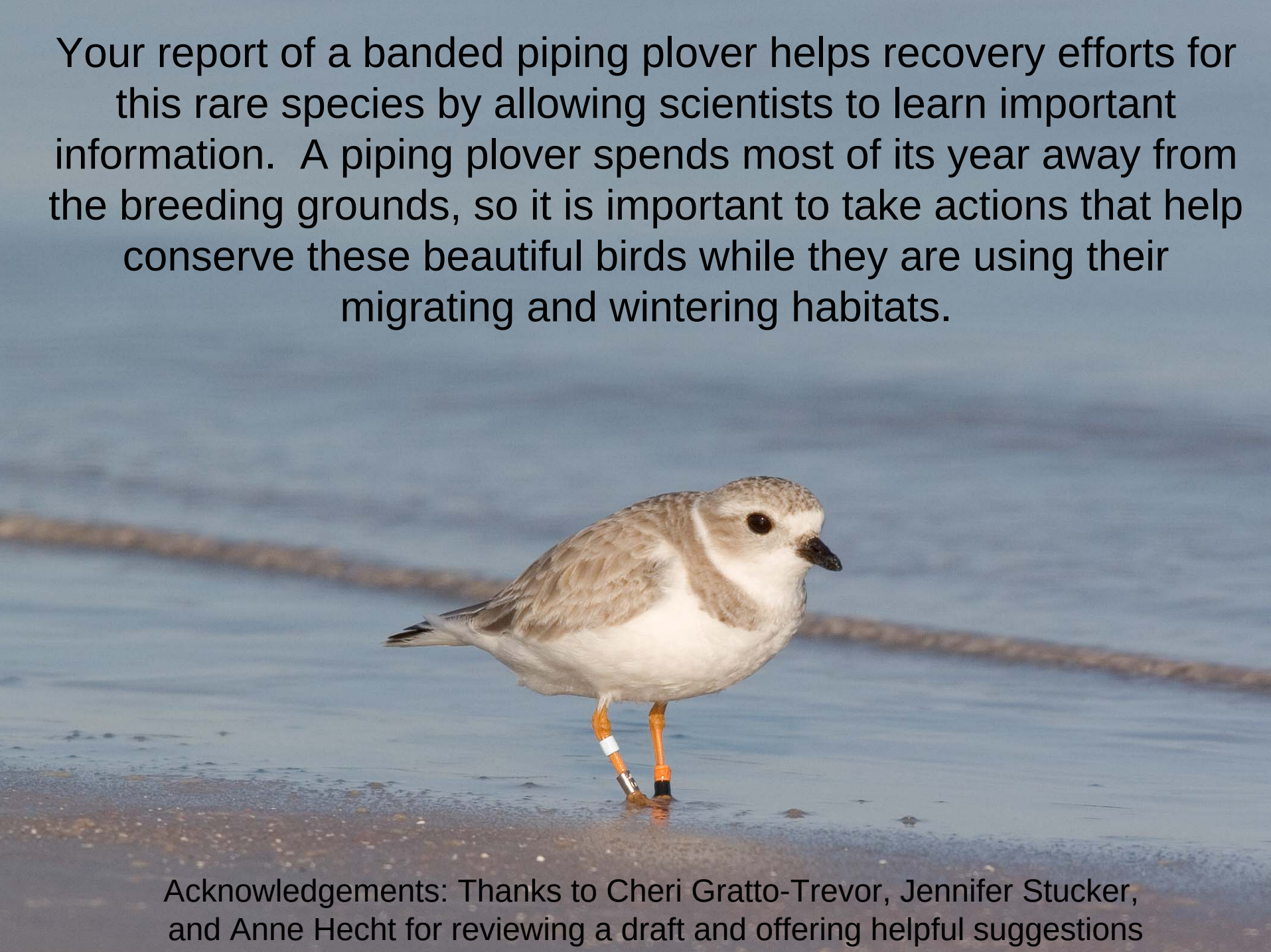
- To figure out the number, locate each number relative to others and beginning and end of band

- May be able to identify the bird without knowing all the numbers

Photography Benefits and Costs

- Records what you see.
- Can sharpen image with Photoshop's "unsharp mask."
- Can enlarge image with Photoshop's "bicubic smoother."
- When you review the pictures on the computer, sometimes you see things that you do not see in the field.
- Make identifications that are not possible with scope for faded Atlantic Canada or metal USGS bands, but usually not any better than a scope for just color bands.
- Can also use pictures for training and conservation education purposes.
- Field time can be increased, especially if one is trying to photograph faded or metal bands.
- Potential extra disturbance risk; photographer must be very careful, patient, and knowledgeable about plover behaviors.
- Significant financial cost: $6,000 - 10,000 for necessary equipment (500 or 600 MM lens, 1.4 teleconverter, and camera body). A smaller lens should not be used, because with a less powerful lens, you need to be much closer, thereby increasing the risk of disturbance.
- Equipment is fragile and not waterproof.
- Need to be knowledgeable about photography equipment and how to use it.
- The camera and tripod are heavy: up to 25 pounds of extra equipment
- There is extra time in front of the computer to process images: ½ hr to 8 hrs

Your report of a banded piping plover helps recovery efforts for this rare species by allowing scientists to learn important information. A piping plover spends most of its year away from the breeding grounds, so it is important to take actions that help conserve these beautiful birds while they are using their migrating and wintering habitats.



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