

Birds of the Seashore

INTERMEDIATE LEVEL

AUTHORS:

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CORRELATION TO NJCCCS:

The correlations in this publication were done prior to 2002 utilizing the older standards from 1994.

LANGUAGE ARTS:

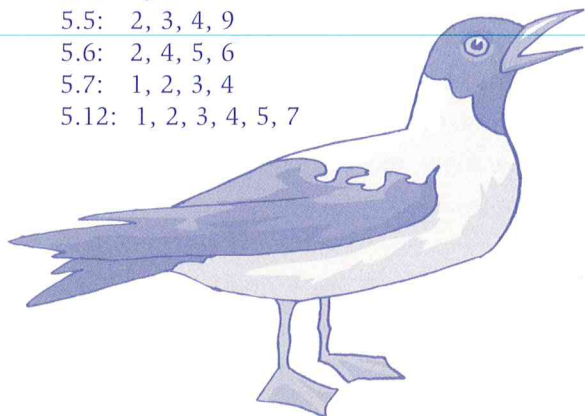
3.3: 3
3.5: 2, 4, 5, 8

MATHEMATICS:

4.1: 8, 11
4.3: 2, 6
4.4: 2, 5
4.9: 1, 2, 4, 5, 6
4.10: 2, 5, 7
4.12: 1, 3

SCIENCE:

5.2: 2, 4, 5
5.4: 1, 2
5.5: 2, 3, 4, 9
5.6: 2, 4, 5, 6
5.7: 1, 2, 3, 4
5.12: 1, 2, 3, 4, 5, 7



1 Objectives:

Students will be able to:

- identify at least two birds common to the seashore area on site,
- identify at least one species of bird, common to the seashore area, utilizing one or more of the following characteristics: habitat, flight pattern, song, silhouette,
- verbally describe range, and food source, of a least one species of bird common to the seashore,
- verbally describe the role of a least one species of bird in the seashore ecology,
- describe why birds are an important economic factor in seashore regions both historically and contemporarily,
- describe how some part of the anatomy of at least one species is an adaptation to its particular environment and function.

Subject Areas

Language Arts, Mathematics, Science,
Social Studies.

Duration

One class period; One field trip.

Setting

Indoors; outdoors - offsite.

Skills

Analyzing, comparing, sequencing, interpreting.

Vocabulary

Based on the theme of birds of the seashore or shorebirds.

2 Materials

- Field glasses and compasses,
- Pencils, clipboards, worksheets,
- Supplementary text books,
- Identification books,
- Thermometers.

3 Making Connections

People often describe their fascination with birds, especially gulls, terns, sandpipers and others that are found along beaches of the Atlantic Coast. In and near the wetlands of the Atlantic Flyway, geese, ducks, and birds of prey such as the osprey are often admired by bird watchers and hunters or by casual observers.

The birds of the seashore are frequently seen along beaches and mudflats. A few are seen inland and even near upland regions. The purpose of this lesson is to provide insight into the habits and functions of the birds of the seashore as they relate to the ecology of the environments they frequent. **Any one of the following three quotes could be used to elicit creative writing projects based on refining observational skills.**

■ “The little flock (sanderlings) wheeled out over the bay in a wide circle, flashing white wingbars; they returned, crying loudly as they passed over the flats where the young were still running and probing at the edge of the curling wavelets; they turned their heads to the south and were gone.”

—Rachel Carson, *Under the Wind*.

■ “In April laughing gulls appear all along the Atlantic coast of the United States, even to Maine. In late August and September they are again on their way southward and October sees most of them in the sunny north.”

—Forbush and May, *American Birds*

■ “The black duck does not drag itself into the air with laboring wings and splattering feet, but springs up at a bound.”

—Forbush and May, *American Birds*.

4 Background



Ducks, geese, gulls and terns are not properly termed Shorebirds. They are, however, often found in close proximity to Shorebirds.



“Birds of the Seashore” are often seen on beaches, mudflats, inland and upland areas and sometimes far at sea. Some of these birds frequent only one of the above habitats, others make use of all of them.



The “Birds of the Seashore” perform a valuable function in the habitats they frequent. Some birds function as scavengers. Others become food for other creatures. Still others maintain the population levels of other living things by predatory feeding. Some birds perform all these functions and more.



According to historical documentation, thousands of “Birds of the Seashore” have been slain for sport, food, millinery, and superstition. Laws now regulate the taking of birds for the above reasons.



Some species of birds saved from possible extinction by the gun, trap, snare, and collector, now face a more frustrating and subtle dilemma from human land use, dwindling habitats, pollution from chlorinated hydrocarbons, oil spills, and other forms of exploitation.



The various species of seashore birds share many common characteristics yet are often very different. Through familiarization with the characteristics, one can learn to identify the various species. Some of these characteristics are flight, feeding habits, call, size, habit, and time of appearance.



Even though one cannot see a particular bird, often clues that are present will indicate the presence of the bird at another time during the year.



“Birds of the Seashore” are pleasing to study and delightful to watch. Some are as small as a sparrow, others as large as an eagle. Some are easy to see frequently because they congregate in large numbers. Others are more difficult to observe because they do not congregate. Some are secretive.



Some species travel thousands of miles during annual migrations. Annual migrations may be closely related to climactic conditions, the presence and/or absence of food supplies, and the migration of other kinds of animals, particularly insects and fish, as well as the length of night and day, or time of the year. This is especially true of the birds that time their migration with the horseshoe crab mating season.



“Birds of the Seashore” have evolved with special adaptations that enable them to compete successfully in their environment and thus to perform a function or role in that environment or ecosystem.

5 Procedure

WARM UP

- Discuss “Birds of the Seashore,” their body parts and size, shape, and color.
- Obtain pictures of various “Birds of the Seashore”: ducks, geese, swans, gulls, terns, rails and birds of prey that frequent the seashore, and post them.
- Make tracings of the body parts using the pictures. Duplicate and disseminate to each student. The students should cut out the body parts and attempt to build a bird, but only after ascertaining why a duck has webbed feet, why an egret has long legs, etc. (i.e. webbed feet-to swim, long legs-to wade.)
- Obtain and study films, slides, books, and pictures. Visit Internet Sites that document the various environments in which one might find seashore birds.

THE ACTIVITIES

INTRODUCTORY:

Use the attached worksheets for a field study of birds of the seashore.

1. The Ten “S” Species Clue chart will help students distinguish bird characteristics.
 2. The Matching Cards can be cut apart and used as a game for younger students.
 3. The “Predicting and Confirming Guide” can be utilized as a pre-trip homework assignment or, if time allows, on travel to the field trip site in a bus.
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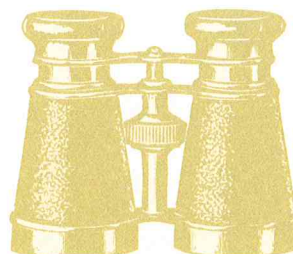
Conduct a short discussion emphasizing habitat, behavior, flight characteristics, song and food sources of seashore birds.

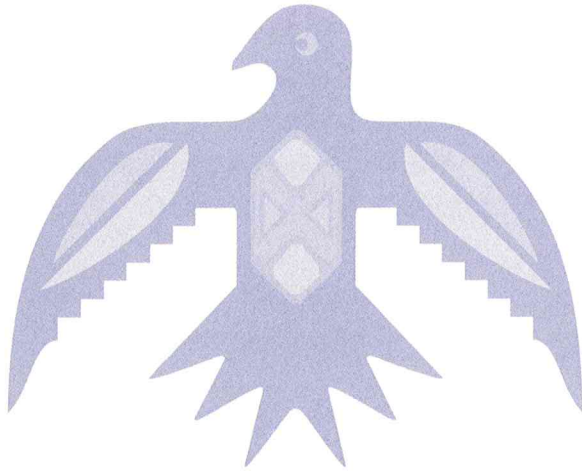
Divide the class into groups of six to ten students for field observations and provide them with field apparatus. They may all go to the same location or the groups may visit different locations, depending on transportation limitations and possibilities.

The field experience should take place at as many of the following locations as time permits:

1. the salt marsh, tidal creeks, mud flats
2. the beach and dunes
3. inlets and islands
4. roosting and rookery areas

■ Observations should concentrate on ONE SPECIES AT EACH LOCATION; However, a separate worksheet should be provided for each location.





Early American Indian seashore bird interpretation

■ The students should be instructed in the use of bird identification books, and natural history books.

■ Group research about the species observed by the students should be placed in a form to be presented by a representative from each group to the entire class, as part of the summary.

WRAP UP

■ Each student reports verbally and/or artistically about a seashore bird observed in the field.

■ Students write and present to other classes a play, or report. Students can construct a bulletin board that depicts the various environmental conditions and the species observed during the field experience, emphasizing the role played in the environment by the various species observed.

6

Resources Referenced

BOOKS:

Allen, Glover Morrill. Birds and Their Attributes. New York NY: Dover Publications, 1962

Forbush and May. American Birds. New York: Bramhall House, 1939.

Matthiesen, Clem, Palmer. The Shorebirds of North America. New York NY: Viking Press, 1967.

Peterson, Roger Tory. A Field Guide to the Birds. Boston: Houghton Mifflin Company, 1962

WEBSITES:

www.birder.com

www.nj.com/audubon/

www.raptor.cvm.umn.edu

FILMS:

More than forty films depicting the life-cycle of various waterfowl are available from:

Ducks Unlimited Film Library

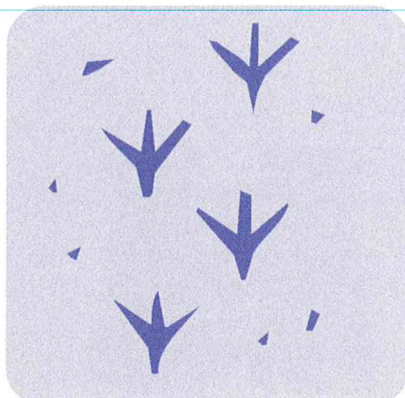
P.O. Box 66300

Chicago, Illinois 60666

A nominal rental of \$5.00 per film is charged by this organization.

SOURCE:

Delaware Bay Shorebird. © 1998 Delaware Dept. of National Resources and Environmental Control. Doc. No. 40-5/98/04/01. Delaware Division of Fish and Wildlife.



What are Shorebirds You Ask?

The following description of shorebirds comes from The Shorebird Sister Schools Program.

This highly successful program is an international, cooperative initiative between the United States Fish & Wildlife Service, various countries, state agencies and numerous organizations. This would be the authority on shorebirds, shorebird migration and internationally trends in population, protection, and education. The website is a must see for more information about this wonderful opportunity to involve your students in shorebird studies.

Visit it at: <http://sssp.fws.gov> to discover the plethora of resources related to shorebirds that can be found there including: a guide and description of shorebirds, migratory routes and maps, lesson plans and much more.



Shorebirds are a group of special birds that are adapted to live near water. Because of their lifestyle, particularly during their spectacular migrations, of walking through water and mud to find food, Europeans call these long-legged birds “waders.” Some shorebird species are adapted to live in short grass prairies.

Each spring and fall, enormous flocks of shorebirds swarm along the coasts in great migrations. It is a thrilling sight when the shore comes alive with feeding birds, or a flock swiftly wheels and turns in flight. These flocks pulse to and fro with the cycles of the tides, and, on a broader scale, with the cycles of the seasons. Shorebirds eat, breed, travel, and rest as a part of these cycles of nature.

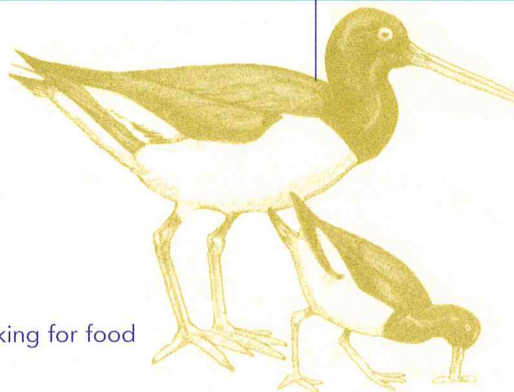
Shorebirds are more accurately described as birds of open land, including, but not limited to, the shore. Shorebirds include the sandpipers, plovers, oystercatchers, snipes, and stilts, among others. Shorebirds are not seabirds (such as terns or gulls), waterfowl (such as ducks), or wading birds (such as herons or egrets).

Besides their regular migrations, their lifestyle includes other highly developed rituals of behavior, including elaborate courtship displays. Most of us have never had the pleasure of witnessing these displays because many migratory shorebirds nest in remote Arctic tundra or open grassland.

There are about 214 species of shorebirds in the world of which 51 species regularly breed in North America. Many of these species, 65%, breed only in the boreal and arctic regions of northern North America. Seventy-five species breed in the Holarctic region which means they nest and raise there young in either the North American Arctic or Northern Europe and Russian arctic. Shorebirds that breed in North America build their nest along shorelines of rivers and lakes, on coastal beaches and marshes, or in interior grasslands or wetlands.

For the purposes of this activity, “Birds of the Seashore,” include species of actual shorebirds, as well as egrets, herons, ducks, geese, gulls, terns, etc.

Included in your discovery would be any birds that utilize the seashore or coastal habitats for both feeding, breeding and nesting.



Oystercatchers looking for food

Birds of the Seashore Worksheet



Name: _____

Date _____ Time _____ am pm

1. Describe the weather conditions.

Temp of Air _____ C/F Cloud Cover: _____

Wind Direction _____ Approximate Wind Velocity _____

Tide Conditions: (circle one) Low High Full

2. Describe the site/location where you are looking for shorebirds.

3. How does the bird look when it flies? Does it glide at all or does it beat its wings steadily.

4. Is there a large flock, a few birds, or is the bird by itself? Is it with other species?

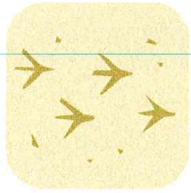
5. How does the bird look when it is on the ground? Does it ever perch in a tree or a tall man-made structure?

6. Does the bird have any unique movements when feeding? What does it appear to be feed on? Dig some up if possible.

7. What distinctive marks can you see on the bird on the ground? When it is flying?

8. Sketch the bird and try as hard as you can to make the body parts proportional to the live bird, i.e. the legs, the size in relation to body, wings, neck and so forth as they are on the real bird.

Birds of the Seashore Field Notes



NO.	NAME	SIZE	SHADE	SWEEP/FLIGHT	SONG	SILHOUETTE	SURROUNDINGS	SKETCH



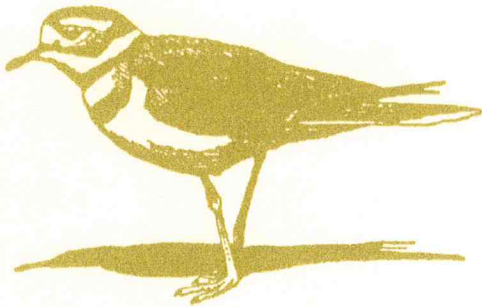
Great Blue Heron



Greater Yellowlegs



Herring Gull



Killdeer



Marsh Hawk

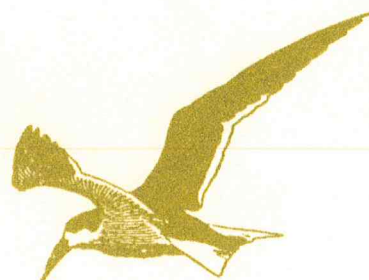
Belted Kingfisher



Black Duck



Black Skimmer



Common Tern

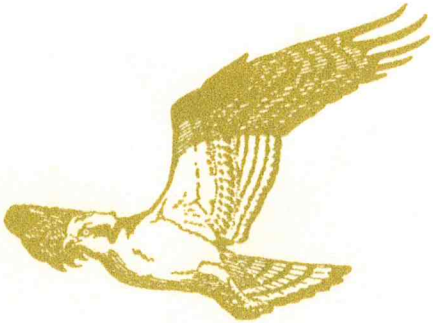


Cormorant





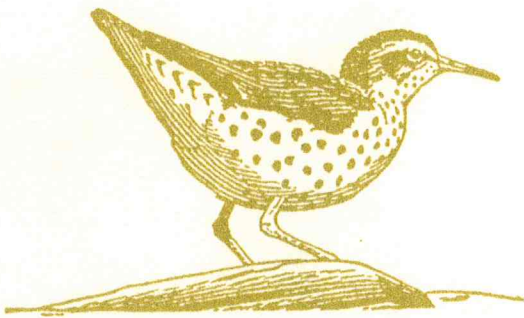
Whistling Swan



Osprey



Peregrine Falcon



Spotted Sandpiper



White Ibis

Ten "S"

Bird Characteristic Guide

1. SIZE

-Is the bird larger than a sparrow (6 inches)? A robin (10 inches)? A duck (20 inches)?

2. SHADING

-Areas of the body where colors are located. Variations in color at the throat, belly, wings, tail and markings of feathers. What distinctive marks can you see on the bird on the ground? When it is flying?

3. SWEEP

-What are the flight and diving characteristics of the bird? Jerky, darting, swooping, gliding, irregular flight or hovering, or do the wings beat steadily?

4. SONG

-What are the sounds the bird makes? Raspy, chirp, honk, scream, whistle, cry, etc.

5. SILHOUETTE

-Shape: plump, sleek, thin, short, stubby, streamlined. Head & Bill shapes: head crested, rounded, flat? Bill thick, thin, long or short, decurved, recurved?

6. SURROUNDINGS

-Habitat: Describe the site/location where you are looking for your shorebird. Where was it located? Sandy beach, salt marsh, sand dune, perched on natural structure or man-made structure such as telephone wire, fence post, along a road, swimming or floating?

7. STYLE

-Behavior: Is there a large flock, a few birds, or is the bird by itself? Is it with other species? Does the bird have any unique movements when feeding? What does it appear to be feeding on? Take a close look.

8. SEASON

-What time of year is it (spring, summer, fall, winter)? Do you think this bird is found here during other seasons?

9. SKETCH

-Sketch the bird and try as hard as you can to make the body parts proportional to the live bird, i.e: the legs, the size in relation to body, wings, neck, etc.

10. STATISTICS

-Numbers. How many of this species have you counted at this particular site?

Ten "S" • Species Clue Chart

PRACTICE CHART FOR TWO BIRDS

TEAM MEMBER'S NAMES: _____ DATE _____

SIZE	SHADE (COLORS)	SWEEP (FLIGHT)	SONG	SILHOUETTE (SHAPE)	SURROUNDINGS (HABITAT)	STYLE (BEHAVIOR)	SEASON	SKETCH	STATISTICS (# and SPECIES NAME)

BIRD CHARACTERISTICS GUIDE

1. **SIZE**-Is the bird larger than a sparrow? (6 inches) A robin (10 inches)? A duck (20 inches)?
 2. **SHADING**-Areas of the body where colors are located. Variations in color at the throat, belly, wings, tail and markings of feathers. What distinctive marks can you see on the bird on the ground? When is it flying?
 3. **SWEEP**-What are the flight and diving characteristics of the bird? Jerky, darting, swooping, gliding, irregular flight or hovering, or do the wings beat steadily?
 4. **SONG**-What are the sounds the bird makes? Raspy, chirp, honk, scream, whistle, cry, etc.
 5. **SILHOUETTE**-(shape)-Body Shape: plump, sleek, thin, short, stubby, streamlined. Head & Bill shapes: head crested, rounded, flat? Bill thick, thin, long or short, decurved, recurved?
 6. **SURROUNDINGS**-(habitat)-Describe the site/location where you are looking for your shorebird. Where was it located? Sandy beach, salt marsh, sand dune, perched on natural structure or man-made structure such as telephone wire, fence post, along a road, swimming or floating?
 7. **STYLE**-(behavior)-Is there a large flock, a few birds, or is the bird by itself? Is it with other species? Does the bird have any unique movements when feeding? What does it appear to be feeding on? Take a close look.
 8. **SEASON**-What time of year is it (spring, summer, fall, winter)? Do you think this bird is found here during other seasons?
 9. **SKETCH**-Sketch the bird and try as hard as you can to make the body parts proportional to the live bird, ie: The legs, the size in relation to body, wings, neck and so forth as they are on the real bird.
 10. **STATISTICS**-(Numbers)-How many of this species have you counted at this particular site?
- SPECIES-HYPOTHESIS**- You are the *scientist*. What do you predict the name of this bird species is?

Predicting & Confirming Guide

NAME: _____ DATE: _____

Read each sentence paying particular attention to the underlined word.

under PREDICT write what you think the underlined word means.

Under CONFIRM look up and write the actual meaning of the word.

READ	PREDICT	CONFIRM
1. The <u>adaptation</u> of a long slender bill allows for some shorebirds to probe deeply into the sand or mud for their food.		
2. Many birds migrate along the same <u>flyway</u> every year.		
3. It is not difficult to sight at least one species of <u>shorebird</u> every time we visit the beach.		
4. Dabbling ducks, also known as <u>puddle ducks</u> , show a wide range of colors; however, they are most easily recognized by their tails up feeding habit.		
5. <u>Diving ducks</u> have completely different feeding habits and preferences than puddle ducks.		
6. Going on a field trip allows you to observe the behavior of individual bird species within their <u>habitats</u> .		

Predicting & Confirming Guide

PAGE 2

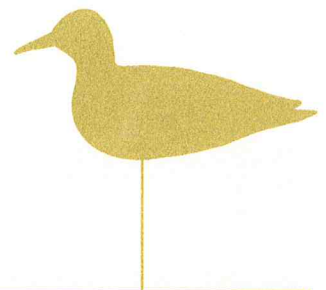
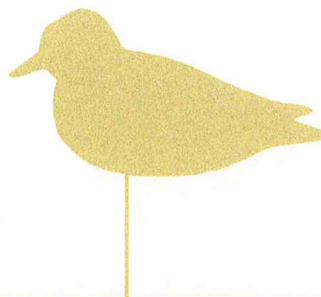
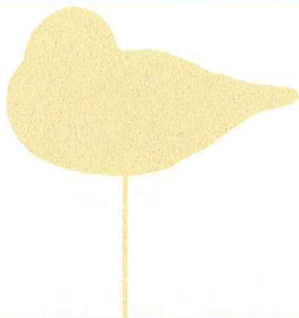
NAME: _____ DATE: _____

READ

PREDICT

CONFIRM

7. You will discover why different shorebirds occupy particular <u>ecological niches</u> .		
8. Whether you are a beginner or experienced <u>ornithologist</u> , a variety of field guides will give you different ways of looking at birds.		
9. A good time to observe a variety of birds is during fall <u>migration</u> .		
10. Long thin legs are an <u>adaptation</u> for wading birds.		
11. The <u>ecotone</u> between the salt marsh and the maritime forest was flooded by an unusually high tide.		

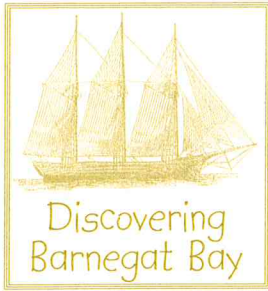




SPECIES-HYPOTHESIS

- You are the scientist.

What do you predict the name of this bird species is?



Shorebird Silhouette Decoys

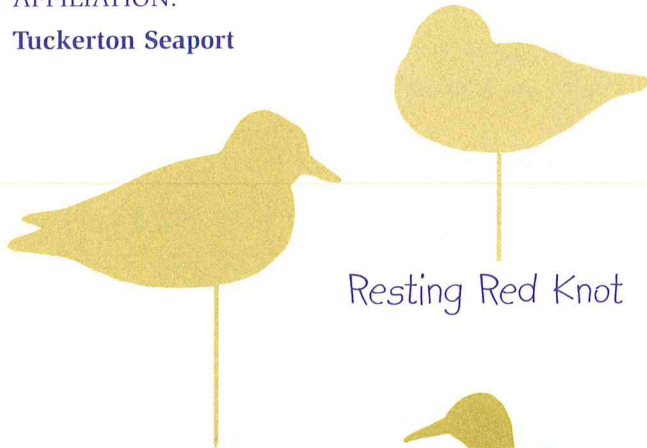
(Make a painted Ruddy Turnstone)

AUTHORS:

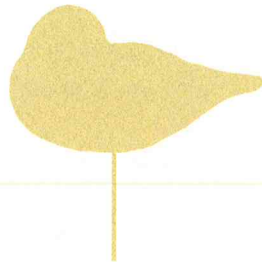
Patricia A. Schuster and Elizabeth L. Huch

AFFILIATION:

Tuckerton Seaport



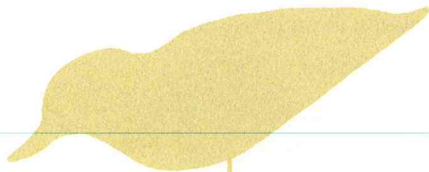
Piping Plover



Resting Red Knot



Solitary Sandpiper



Ruddy Turnstone

1 Objectives:

STUDENTS WILL BE ABLE TO:

- complete one shorebird silhouette in the time allotted.
- describe the use of shorebird silhouettes.
- explain the relationship between market gunning and today's shorebirds.

CORRELATION TO NJCCCS:

The correlations in this publication were done prior to 2002 utilizing the older standards from 1994.

VISUAL ARTS: 1.3: (2,3) 1.5: (2,3,5,6)

SOCIAL STUDIES 6.2 (1,2,3,6,7) 6.4 (4,6,7)
6.5 (5,6) 6.6 (1-5, 9,10)

Subject Areas

Visual Arts and Social Studies.

Duration

Two to three class periods.

Setting

Indoors.

Skills

Following directions, sequencing, interpreting.

Charting the Course:

Shorebird hunting had been a tradition along the Jersey Shore decades before the enactment of the Federal Migratory Bird Treaty Act in 1918. To attract these small birds within range of their guns, market gunners used a variety of decoys including shorebird silhouettes or 'flatties'. Once public opinion and legislation changed, these decoys passed into the realm of folk art and are highly prized collectibles.

Vocabulary

List included with lesson.

2 Materials

- Silhouettes made from 1/2" plywood (1/participant and one completed silhouette to use as a model),
- 1/4" dowels cut into 9" lengths (one per silhouette),
- latex house paint (one quart each color) or artists acrylics in black, white and rust,
- traditional shorebird decoys or photographs,
- sandpaper,
- Minwax finishing wax,
- clear acrylic sealant in a matte finish,
- artist brushes,
- newspapers,
- water containers,
- paint containers,
- paper towels,
- hair dryer.
- If desired, 3" x 4" bases with 1/4" holes can be provided to students.
- If time allows, use examples of other decoys for comparison.

3 Preparation

Trace flattie pattern on 1/4" plywood, cutting out as many as are needed for each participant. Drill holes for the dowels in the bottom of each decoy as pattern indicates and secure with a drop of glue. If bases are to be used, do not attach silhouettes until they are completed. Silhouettes should be base coated white if class time is limited.

4 Background

Most people are familiar with the concept of decoys that are designed to attract some kind of animal within range of a hunter. Most people think of carved, wooden ducks or geese when the word 'decoy' is mentioned. However, decoys can be made of wood, plastic, canvas, metal, cork and even papier maché. They have been used to attract a variety of shorebirds, game birds, waterfowl and fish.

Decoys made by native people in America, as early as 1000 A.D., were often made of reeds or actual bird skins stuffed with plant fibers. Later, carved wooden decoys, roughly approximating the size

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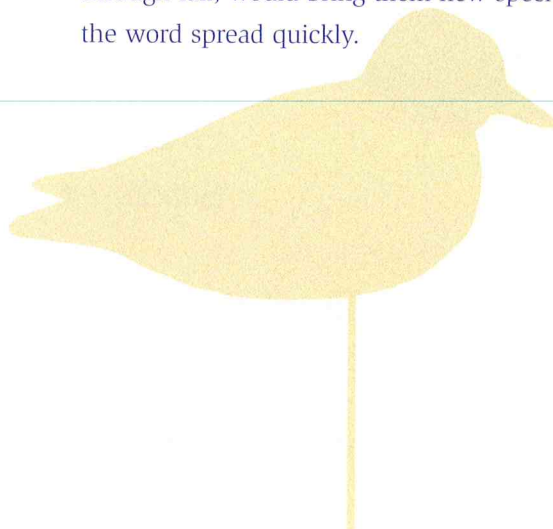
and appearance of various species, were made. As individual carving and painting skills improved, reputations for quality decoys of primarily waterfowl and shorebirds were developed.

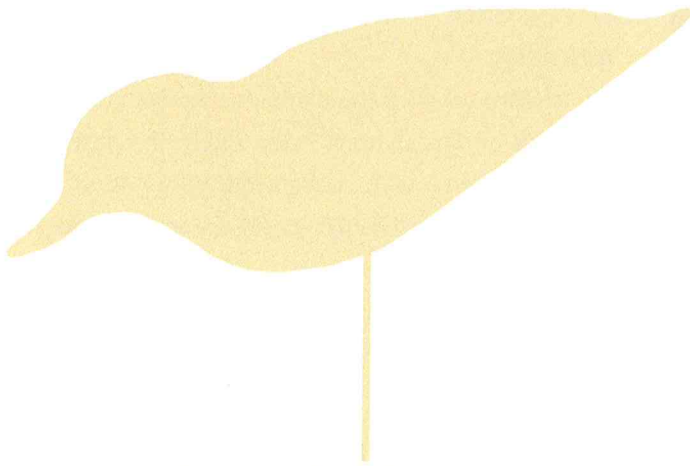
Today, such works are declared 'folk art'. Carvings by old time master carvers now command high prices at auctions. Eventually, styles became more defined, so that even unsigned birds can be identified if one knows what to look for. Interestingly, decoys seem to be a uniquely American folk art, although decoys are also mentioned briefly in a report on hunting in Greece.

A few decoys have been found in Europe, but it is likely those came from contact with the American scene. No decoys have been found in the Far East or Middle East.

The reason for the development of this American art form is due to the birds themselves. They were here!

The Jersey Shore lies along the Atlantic Flyway, a migration pattern for a variety of birds. It is a super highway of sorts, traveled twice a year by birds driven by ancient instinctual urges. In the past, migrating geese were so numerous that they would block out the moon at night while flocks of ducks would block out the sun during the day. Opportunities for wildfowling were everywhere and conservation was unheard of at that time. Hunters quickly learned that each month, spring through fall, would bring them new species and the word spread quickly.





In the late 19th century, the market gunner appeared, designed to satisfy the public's taste for freshly killed shorebirds, waterfowl and even songbirds! Decoy factories in the mid-West churned out large quantities of wooden, tin and iron decoys. In the Jersey Shore region, financial reasons were likely the reason that the hand carved bird remained in vogue.

Two men with double-barreled shotguns could easily shoot 600 birds a day! At that time, there were no limits on the number of birds shot, no established hunting season, and food and live decoys could be used as bait. Barrels of curlew, doves, ducks, geese, plovers, robins and other species were loaded onto trains and boats, surrounded by ice to prevent spoilage and shipped to New York and Philadelphia. Less desirable species of shorebirds were sometimes used as packing material to lessen bruising of more important birds.

During the 1850s, shorebirds often sold for as little as .10/dozen. As a result of the low cost and the seemingly endless number of birds, market hunters had little regard for the animals. In their minds, there were "plenty more where they came from."

Writers from this period tended to describe the flesh of many of these small birds as "rank, sedgy or fishy," often to the point of being "unpalatable." Why then, were so many of them killed? In 1848 in his book *Frank Forester's Field Sports*, Henry Herbert stated that "shorebirds were hunted when other game birds or animals were absent, when they were out of season or off limits during their

breeding season." He further added, "...some persons who shoot well, are exceedingly fond of this amusement, as it gives no trouble, requires no fatigue or exertion, and above all, as on good days, the shooting is incessant, and the bag is often immense." This is why the birds were killed – for easy amusement.

By the 1870s, the hunter as conservationist began to advocate regulations designed to protect game and non-game species. Many of these hunters were among the earliest members of the Audubon Society. While this may seem surprising, many men who enjoyed hunting game birds felt that since hunters were unable to impose their own limits for ethical reasons, other species would soon join the ranks of the passenger pigeon and the Carolina parakeet if state or national regulations were not imposed.

The media of the day picked up the battle cry of the conservationists and soon, shorebird hunting began to lose favor with the general public. Many people, with the exception of the market gunners, felt that shorebird hunting, or at least the hunting of certain species, should be banned. Others lobbied for banning the use of punt guns and night hunting which were unpopular with sportsmen and the public alike. Some felt that such activities should be punishable with large fines and imprisonment.

Under pressure from individuals and conservationist groups, many states drafted legislation prohibiting spring hunting. The Lacey Act of 1900 made the interstate shipment of wildlife illegal. In 1910, the Shea-White Plumage Act slowed the millinery trade in fins and feathers. By 1918, the Federal Migratory Bird Treaty Act made the sale of migratory birds illegal and banned market gunning. The federal government established hunting seasons and only four shorebirds could be taken (black bellied and golden plovers and greater and lesser yellowlegs). All shorebird hunting ended in 1928.

As legislation changed the face of hunting, fewer shorebird decoys were carved. With shorebird hunting declared illegal, the ever-practical Baymen simply burned their decoys in their fireplace or used

them as insulation in their walls since they could serve no other useful purpose. Today, these rare shorebird decoys are prized possessions that command high prices as serious collectibles.

Shorebirds are defined as any of the wildfowl that feed along beaches, tidal flats or marshes (meadows). Shorebird decoys are generally of the 'stick up' variety, since they were mounted on sticks set into the ground. Shorebird decoys were then placed amongst vegetation on the marshes, in rocks or jetties, or along the shoreline where they would typically feed.

While many people are familiar with traditional duck decoys, few people are familiar with shorebird decoys and far fewer are aware of silhouette or 'flattie' decoys. These flat decoys had definite advantages. They were relatively inexpensive and were lightweight and therefore easy to carry. Early East Coast flatties primarily depicted sea ducks. Two thick pieces of pine were attached at the base by a spacer or spreader. The length of the spacer was varied so that multiple sets could be nested together for easy transport. Each board was painted on the outside only to resemble a specific species of waterfowl. As many as six sets were used, giving the illusion of 12 ducks swimming together. Later silhouettes were made of plywood. Still later, cardboard, metal, masonite and plastic were used.

Silhouettes are still in use today, although computer technology has provided manufacturers with the ability to silkscreen actual photographs onto vinyl, which is then applied to the form. The result is a very realistic decoy. There is one major disadvantage to flatties vs. traditional decoys, however. No bird flying overhead would be convinced to join this flock of skinny birds!

Today, we will be creating our own 'instant heirloom'. Our flattie is a Ruddy Turnstone in its breeding plumage. This bird is named for its ruddy or rusty color and its habit of upending stones and other debris in search of food. It is a short, stocky bird with a short, upturned bills. Like most of our shorebirds, it has been greatly affected by loss of habitat throughout their migration path.

5 Procedure

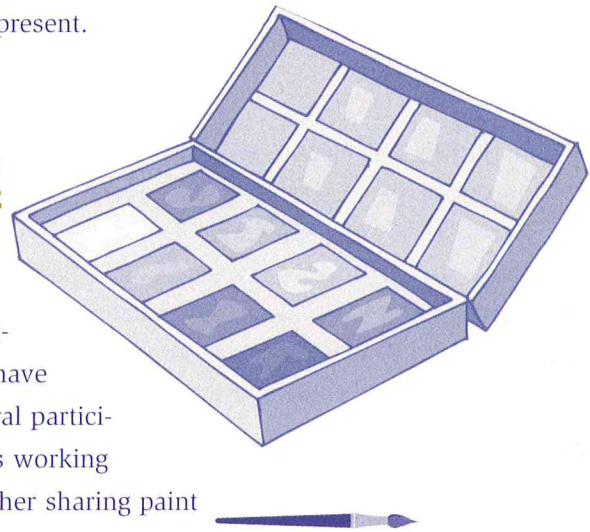
WARM UP:

Discuss decoys with the students. Brainstorm the kinds of decoys used today and in the past. Provide students with background information regarding shorebird hunting and the tools associated with the market gunners. Discuss conservation efforts of the past and present.

ACTIVITY

PAINTING THE RUDDY TURNSTONE

If possible, have several participants working together sharing paint cups, etc.



Pass out silhouettes and one sheet of sandpaper to each participant. Whether base coated or not, instruct participants to place the sandpaper on the table and rub the flattie back and forth over it, using the dowel as a handle. Sand both sides. Edges should also be sanded.

Instruct participants that the flattie will dry faster and look better if small amounts of paint are used. Discourage the use of large amounts of paint, particularly with younger students.

Instruct participants in proper painting techniques, (i.e., do not dip the brush into the paint beyond the half way mark on the bristles, do not paint with more than the tip of the brush).

BLACK PAINT

Instruct participants to paint the entire bill black, making sure to paint the sides, top and bottom. Demonstrate on a blackboard or flip chart (see attachment "Black Paint").

6

Shorebird Silhouette Resources

Once completed, instruct them to paint a half-circle on the cheek, making sure to paint the bottom edge of the cheek line as well. Demonstrate on blackboard first. Next, they are to paint the collar and bodylines making sure to paint any top or bottom sections as well. Allow paint to dry for a few minutes.

RUST PAINT



Instruct participants to paint the wing and back, making sure to paint the top edge as well. Demonstrate on blackboard, shading the area with the chalk (see attachment “Rust Paint”). Allow paint to dry for a few minutes.

WHITE PAINT



Omit this step if base-coated. If not base-coated, instruct participants to paint inside the black lines. Demonstrate on sample or blackboard first (see attachment “White Paint”). Allow paint to dry for a few minutes.

FINAL DETAILS



Using black paint, make three small hash marks on wings and on top of tail. Repeat with white paint. Demonstrate on sample or blackboard first (see attachment “Final Details”). Paint in eyes with black paint using the flat end of the paintbrush as a stamp. Finally, pass out bases if they are to be used. Insert dowels into bases and paint dowels with black colored paint. Allow paint to dry. Dry flatties with hair dryers if necessary.

FINISHING TOUCHES



Once completely dry, lightly sand the edges and sides to ‘age’ the decoy. Sand the edges and sides where normal wear would occur. If desired, ‘shoot’ the silhouette with ‘shotgun pellets’ by poking into the wood with nails or paper clips. Be aware that some students are unwilling to ‘damage’ (i.e., distress or age) the decoy they just spent so much time creating. As an option to distressing and antiquing the flattie, allow them to seal the entire project with matte acrylic spray. If students desire, antique the decoy with Minwax Finishing Wax. It is not necessary to use acrylic spray if Finishing Wax is used.

WEBSITES

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www.beach.net.cmo/horseshoe/Bayhorsecrab.html
www.bwilliams@dnr.state.md.us
www.birdcast.com
www.cleanoceanaction.com
www.encarta.msn.com
www.erikm@eirc.org
www.horseshoecrab.com
www.TuckertonSeaport.org
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Shorebird Silhouette Vocabulary

ATLANTIC FLYWAY – One of the four major North to South routes taken by migratory birds in North America.

DECOYS – A live or imitation animal used to lure wild birds or animals within range of a hunter.

FLATTIE – A flat decoy of the stick up variety (see ‘Silhouette Decoy’).

FOLK ART – The traditional artistic expression of a culture.

GAMEBIRDS – The name given to a variety of land birds hunted for food and sport.

MARKET GUNNER – One of the traditional jobs of the Baymen that involved shooting large number of birds for city restaurants in the 19th and 20th centuries.

MIGRATION – the periodic movement of animals from one region or latitude to another, usually related to birds.

MIGRATORY BIRD TREATY ACT – A law enacted in 1918 that banned market gunning.

PUNT GUNS – Guns used by market gunners to shoot large numbers of birds at one time.

RUDDY TURNSTONE – A species of shorebird named for its ruddy coloring and habit of overturning stone and debris in search of food.

SHOREBIRD – The name given to a variety of small, migratory birds found by beaches, rivers and lakes.

SHOREBIRD DECOYS – Traditionally, a carved wooden likeness of a shorebird designed to lure the live birds within range of a hunter.

SILHOUETTE DECOY – A flat decoy of the stick up variety (see ‘Flattie’).

STICK-UP – the traditional style of shorebird decoys whereby the birds were mounted on dowels and set into the ground.

WATERFOWL – The name given to a variety of ducks, geese and swans that were hunted for food and sport.



Shorebird Scramble

Unscramble the vocabulary words associated with the shorebird silhouette decoys.

FLOWERTAW

CTLATNAI YYALWF

YSODCE

TIFTLEA

KFLO TAR

DRIBMAGES

TARMKE NUNGER

TRAGIMORU DRBI ETTRAY CAT

NUTP SUNG

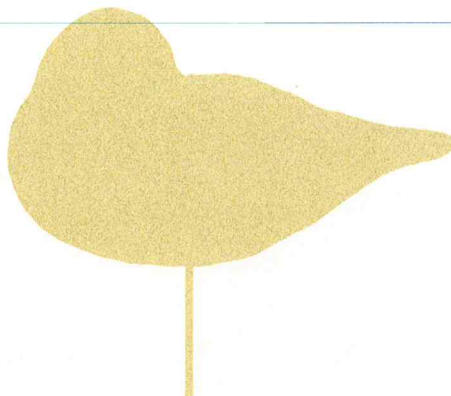
DRUDY STROUNTE

BRIRSDOHE

SHODBERRI CODYES

SHETETLEIOU SCEDYO

KISTC PU



Shorebird Scramble

ANSWER KEY

FLOWERTAW

WATERFOWL

CTLATNAI YYALWF

ATLANTIC FLYWAY

YSODCE

DECOYS

TIFTEA

FLATTIES

KFLO TAR

FOLK ART

DRIBMAGES

GAMEBIRDS

TARMKE NUNGER

MARKET GUNNER

TRAGIMORU DRBI ETTRAY CAT

MIGRATORY BIRD TREATY ACT

NUTP SUNG

PUNT GUNS

DRUDY STROUNTE

RUDDY TURNSTONE

BRIRSDOHE

SHOREBIRD

SHODBERRI CODYES

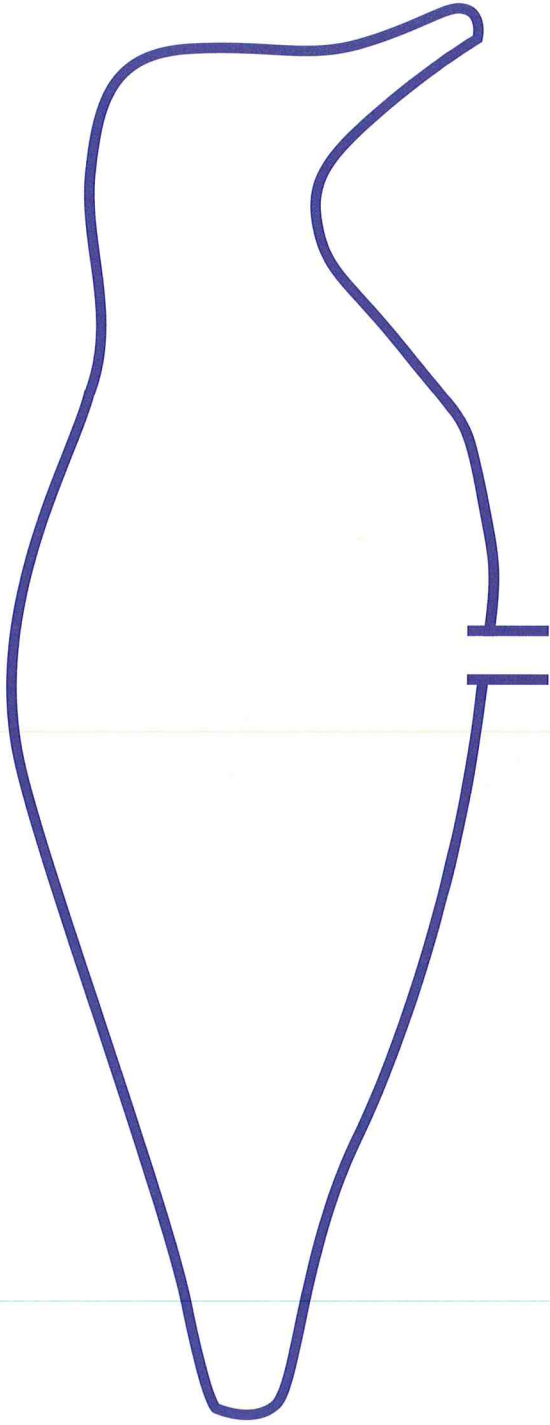
SHOREBIRD DECOYS

SHETETLEIOU SCEDYO

SILHOUETTE DECOYS

KISTC PU

STICK UP



1/4" DOWEL HOLE

Ruddy Turnstone Flatie Pattern

