# **ORNITHOLOGY**



See General Rules, Eye Protection & other Policies on www.soinc.org as they apply to every event.



1. **<u>DESCRIPTION</u>**: Participants will be assessed on their knowledge of North American birds.

A TEAM OF UP TO: 2 APPROXIMATE TIME: 50 minutes

### 2. EVENT PARAMETERS:

- a. Each team may bring one 2" or smaller three-ring binder, as measured by the interior diameter of the rings, containing information in any form and from any source along with one commercially produced field guide not contained in the binder. Sheet protectors, lamination, tabs and labels are permitted in both the binder and field guide.
- b. If the event features a rotation through a series of stations where the participants interact with samples, specimens or displays; no material may be removed from the binder throughout the event.
- c. In addition to a binder, each team may bring one unmodified and unannotated copy of either the 2022 National Bird List or a 2022 Official State Bird List which does not have to be secured in the binder.

#### 3. THE COMPETITION:

- a. The competition may be run as timed stations and/or as a timed slides/PowerPoint presentation.
- b. Specimens/pictures will be lettered or numbered at each station. The event may include preserved specimens, skeletal material, recordings of songs, and slides or pictures of specimens.
- c. For each station, Regional tournaments will have questions about 1 bird per station, State tournaments will use no more than 2 birds per station, and the National Tournament may use 3 or more birds per station.
- d. Each team will be given an answer sheet on which they will record answers to each question.
- e. No more than 50% of the competition will require giving order, family, and/or common name.
- f. Participants should be able to do basic identification to the level indicated on the Official List. States may have a modified state or regional list. See your state web site.
- g. States may have a modified state or regional list which will be posted on the state website no later than November 1st.
- h. The National competition will be based on the 2022 National Bird List.
- i. Each specimen will have one or more questions accompanying it on some aspect of its life history, distribution, anatomy and physiology, reproduction, habitat characteristics, ecology, diet, behavior, conservation and biogeography.
- j. The ecology questions may pertain to any ecological aspect of the species, including behavior, habitat, niche, symbiotic relationships, trophic level, adaptive anatomy such as bill size and shape, migration, distribution or occurrence (e.g., rare, common, special concern, endangered).

#### 4. SAMPLE ACTIVITIES:

- a. Identify the order, family, and/or common name of the provided sample.
- b. What conclusion can be drawn about the habitat(s) of the given specimens?
- c. Which of these animals does not fit within this taxon?
- d. What unique anatomical feature distinguishes the animal shown in the picture?
- e. Consider the potential impact of human activities on the survival of birds.

#### 5. **SCORING**:

- a. High score wins.
- b. Selected questions may be used as tiebreakers.

**Recommended Resources:** The Science Olympiad Store (store.soinc.org) carries a variety of resources to purchase for this event; other resources are on the Event Pages at soinc.org

## 2022 NATIONAL BIRD LIST



See General Rules, Eye Protection & other Policies on www.soinc.org as they apply to every event.



Kingdom – ANIMALIA Phylum – CHORDATA

 ${\bf Subphylum-VERTEBRATA}$ 

**Class - AVES** 

Family Group (Family Name)

Common Name

**ORDER:** Anseriformes

Ducks, Geese, and Swans (Anatidae)

**Black-bellied Whistling-duck** 

Snow Goose Canada Goose Trumpeter Swan F Wood Duck

Mallard **F** Northern Shoveler Green-winged Teal

Canvasback

**Hooded Merganser** 

**ORDER:** Galliformes

Partridges, Grouse, Turkeys, and Old

World Quail (*Phasianidae*) \*Ring-necked Pheasant

Ruffed Grouse J Wild Turkey

New World Quail (Odontophoridae)

Northern Bobwhite -

**ORDER:** Gaviiformes

Loons (Gaviidae)
Red-throated Loon
Common Loon

**ORDER: Podicipediformes** 

Grebes (*Podicipedidae*) Pied-billed Grebe Red-necked Grebe

**ORDER: Procellariiformes** 

Albatrosses (*Diomedeidae*) Laysan Albatross

**Shearwaters and Petrels** 

(*Procellariidae*) Northern Fulmar **ORDER: Pelecaniformes** 

Pelicans (*Pelecanidae*) American White Pelican

Bitterns, Herons, and Allies (Ardeidae)

American Bittern F Great Blue Heron Snowy Egret Green Heron

**Black-crowned Night-heron** 

Ibises and Spoonbills (*Threskiornithidae*)
Roseate Spoonbill

**ORDER: Suliformes** 

**Cormorants** (*Phalacrocoracidae*)

**Double-crested Cormorant** 

Darters (Anhingidae)

Anhinga

Frigatebirds (Fregatidae)

**Magnificent Frigatebird** 

**ORDER: Ciconiiformes** 

**Deep-water Waders (Ciconiidae)** 

Wood Stork

**ORDER: Falconiformes** 

Caracaras and Falcons (Falconidae)

Crested Caracara American Kestrel Peregrine Falcon

**ORDER: Accipitriformes** 

Osprey (Pandionidae)

**Osprev** 

Hawks, Kites, Eagles, and Allies

(Accipitridae)
Bald Eagle F
Northern Harrier
Cooper's Hawk
Red-tailed Hawk F
Golden Eagle

**ORDER:** Cathartiformes

New World Vultures (Cathartidae)

Turkey Vulture California Condor **ORDER:** Gruiformes

Rails, Gallinules, and Coots (Rallidae)

Clapper Rail Sora F

Purple Gallinule American Coot Cranes (*Gruidae*) Whooping Crane

**ORDER:** Charadriiformes

Lapwings and Plovers (Charadriidae)

**American Golden-Plover** 

Killdeer 🍜

Oystercatchers (Haematopodidae)

**American Oystercatcher** 

Stilts and Avocets (Recurvirostridae)

Black-necked Stilt American Avocet

Sandpipers, Phalaropes, and Allies

(Scolopacidae) Spotted Sandpiper Ruddy Turnstone

Dunlin

Wilson's Snipe American Woodcock

Gulls, Terns, and Skimmers (Laridae)

Laughing Gull FRing-billed Gull Herring Gull Least Tern Caspian Tern Black Tern Black Skimmer

Auks, Murres, and Puffins (Alcidae)

Common Murre Tufted Puffin

**ORDER: Columbiformes** 

Pigeons and Doves (Columbidae)

Mourning Dove -F
Common Ground-Dove
\*Rock Pigeon

**ORDER: Cuculiformes** 

Cuckoos, Roadrunners, and Anis

(Cuculidae)

Black-billed Cuckoo -F Greater Roadrunner

<sup>1)</sup> Special Characters: **J** indicates vocalizations that may be tested & \* indicates an introduced, widespread Species

<sup>2)</sup> The taxonomic scheme is based upon the 7th edition Checklist of North American Birds, American Ornithologists' Union, and www.allaboutbirds.org Cornell University Laboratory of Ornithology.

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**ORDER: Strigiformes** Barn Owls (Tytonidae)

Barn Owl

Typical Owls (Strigidae)

Great Horned Owl -

Snowy Owl Barred Owl -F Screech Owl

**ORDER:** Caprimulgiformes

Nightjars and Allies (Caprimulgidae)

Chuck-will's-widow Common Nighthawk

**ORDER: Apodiformes** 

Swifts (Apodidae)

**Chimney Swift** 

**Hummingbirds** (*Trochilidae*)

Ruby-throated Hummingbird 🕹

**ORDER:** Coraciiformes Kingfishers (Alcedinidae)

Belted Kingfisher -F

**ORDER: Piciformes** 

Woodpeckers and Allies (Picidae)

Red-headed Woodpecker Yellow-bellied Sapsucker **Downy Woodpecker** Northern Flicker Pileated Woodpecker

**ORDER: Passeriformes** 

Tyrant Flycatchers (Tyrannidae)

Olive-sided Flycatcher **Eastern Phoebe** Vermilion Flycatcher Great Crested Flycatcher -

Eastern Kingbird Scissor-tailed Flycatcher

Shrikes (Laniidae) Loggerhead Shrike Vireos (Vireonidae) Warbling Vireo

Red-eyed Vireo

Jays and Crows (Corvidae)

Steller's Jay Blue Jay

**Black-billed Magpie** American Crow 🕹 **Common Raven** Larks (Alaudidae)

**Horned Lark** 

Swallows (*Hirundinidae*)

**Purple Martin Cliff Swallow Barn Swallow** 

Chickadees and Titmice (Paridae)

Black-capped Chickadee

Tufted Titmouse -F Nuthatches (Sittidae) Red-breasted Nuthatch -White-breasted Nuthatch

Creepers (Certhiidae) **Brown Creeper** 

Wrens (Troglodytidae)

Cactus Wren Marsh Wren Carolina Wren-Dippers (Cinclidae) **American Dipper** Kinglets (Regulidae) **Golden-crowned Kinglet Ruby-crowned Kinglet** 

**Gnatcatchers** (*Polioptilidae*) **Blue-gray Gnatcatcher** Thrushes (Turdidae) **Eastern Bluebird** Wood Thrush -American Robin -F

**Mockingbirds and Thrashers** 

(Mimidae) **Gray Catbird** 

Northern Mockingbird -

**Brown Thrasher** 

Waxwings (Bombycillidae)

**Cedar Waxwing** 

Wood-Warblers (Parulidae)

Yellow Warbler Magnolia Warbler Yellow-rumped Warbler **Black-throated Green Warbler Black-and-white Warbler American Redstart** 

**Ovenbird** 

**Kentucky Warbler** Common Yellowthroat **New World Sparrow** (Passerellidae) Spotted Towhee -F

Lark Sparrow Harris's Sparrow

White-crowned Sparrow

**Black-chinned Sparrow** 

**Chipping Sparrow** 

Dark-eyed Junco

Longspurs and Buntings (Calcariidae)

Lapland Longspur **Snow Bunting** 

Cardinals and Allies (Cardinalidae)

Northern Cardinal 🗗 **Indigo Bunting Painted Bunting** Scarlet Tanager Blackbirds (Icteridae)

**Bobolink** 

Red-winged Blackbird -Western Meadowlark ᆦ Yellow-headed Blackbird Common Grackle

**Brown-headed Cowbird** Baltimore Oriole 🕹

Fringillids and Allies (Fringillidae)

Red Crossbill **American Goldfinch Evening Grosbeak House Finch** Pine Siskin

Old World Sparrows (Passeridae)

\*House Sparrow

Old World Starlings (Sturnidae)

\*European Starling

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