

Bird's Stick Nest: Structural and Material Analysis

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Shape

There are three common shapes: Cup, Saucer, and Platform

1. Cup

General

– common among songbirds. This is the common nest with hemispherical inside with a rim height several times the diameter of the eggs.

Main Material

– grasses, plant fibers and down, small twigs.

Lining Material

– usually the same as main material but finer, lichen, rootlets, hair, or feathers.

Adhesive

– most of the time, nests are bound by spider, cocoon silk, or mud. Strengthen the nest and keep the nest stationary on the tree.

Example of birds: Warbler, Kingbird, Jay, Hummingbird, and Sparrow

2. Saucer

General – a shallow nest with the height of the rim not more

Main Material – sticks, reed, moss, weed stems and grasses

Lining Material – usually not lined. With rootlets, moss.

Adhesive – usually not present. Mostly used to keep the nest stationary on the tree.

Example of birds: Dove, Ibis, some species of Loons and Gulls

3. Platform

General – typical among raptors and birds of wetland. Roughly built. Big enough for the parents to land on.

Main Material – sticks or twigs.

Lining Material – not present in most case. Grasses, small branches.

Adhesive – not present.

Examples of birds: Pigeon, Hawk, Falcon, Harrier, Kite, Heron

Material

Bird uses certain type of material for various reasons: to strengthen the nest structure, to provide cushion, and protection for their eggs and young. Solid, durable materials such as “stick, twig” provide the lattice structure for the nest. Thin, flexible materials such as “rootlet, grass, bark” line the nest. Soft materials such as “feather, moss, leaves” cushion the egg. In addition, Birds often put some human-made objects in their nest for no apparent reason.

Notably, some species of bird have the habit of adding “green leaves or cedar bark with pesticidal properties” to their nests as the sanitizer. This behavior is often spotted in species that reuse their old nests.

Source: Paul R. Ehrlich, David S. Dobkin, and Darryl Wheye, The Birder's Handbook (Simon & Schuster: New York).

White-tailed Kite



Image courtesy of the State of California.

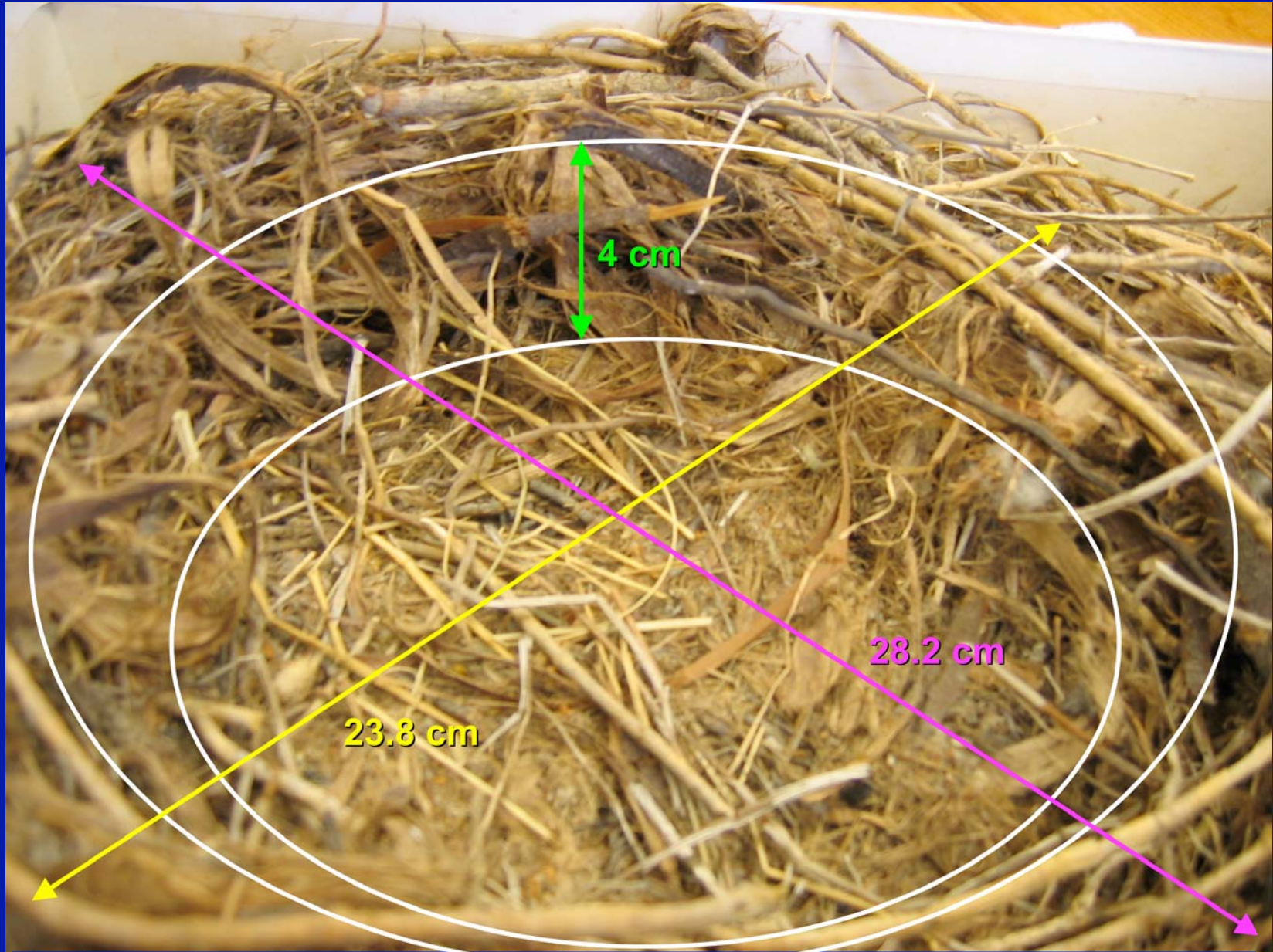
White-tailed Kite



- Saucer-shaped nest
- Mainly constructed with willow twig and weed stick.
- Lined with medium-sized bark.
- Thin, fine bark helps cushion the interior, making it soft.
- Animal fur and pieces of rope are found.
- Tiny twigs are put inside the nest to prevent eggs from rotating around.

Dimension: 23.8 x 28.2 x 8 cm³

White-Tailed Kite



Eastern Kingbird



Image courtesy of the U.S. National Park Service.

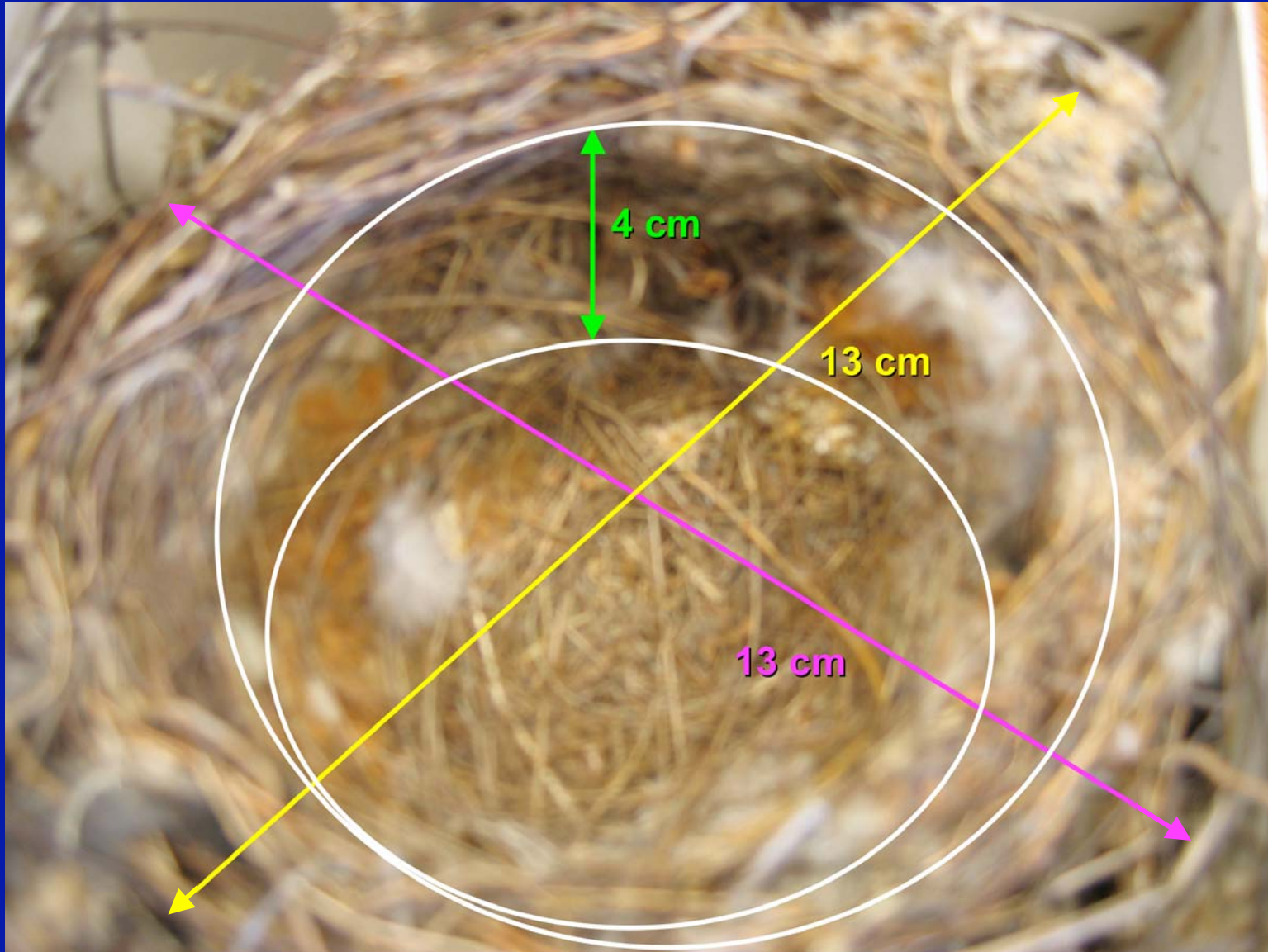
Eastern Kingbird



- Cup nest.
- Main structure is made of flower twigs, which are soft and flexible.
- Lined with rootlets and cotton.
- The interior is delicately cushioned with the parents' feathers and plant fiber.
- Black artificial strings are found throughout the nest.

Dimension: 13 x 13 x 5.5 cm³

Eastern Kingbird



Black-billed Cuckoo



Image courtesy of the U.S. National Park Service.

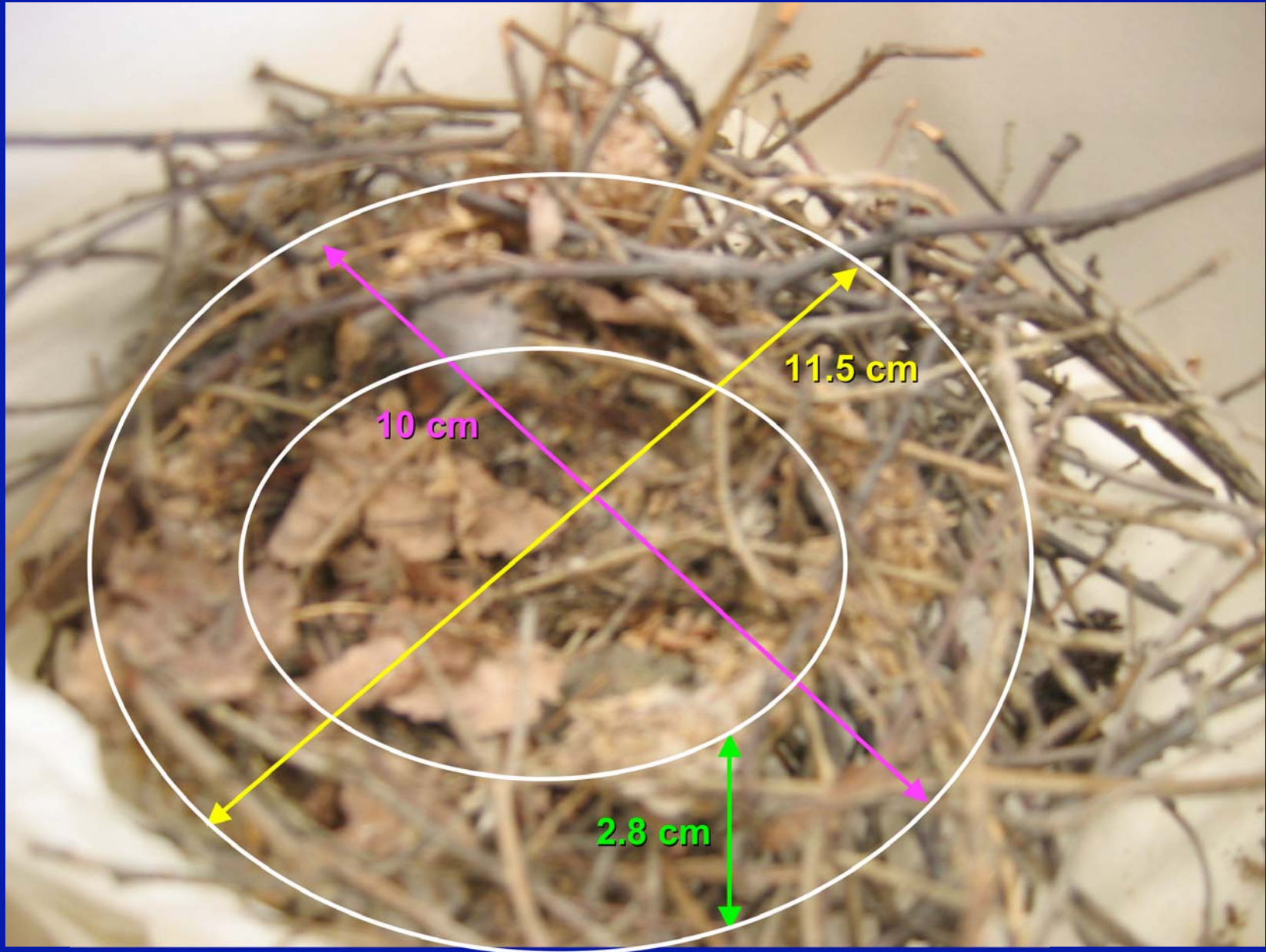
Black-billed Cuckoo



- Platform style.
- Roughly built with twigs.
- Lined with leaves.
- Unsophisticated nest.
- Twigs provide structural strength and leaves cushion the eggs.

Dimension: 11.5 x 10 x 2.8 cm³

Black-billed Cuckoo

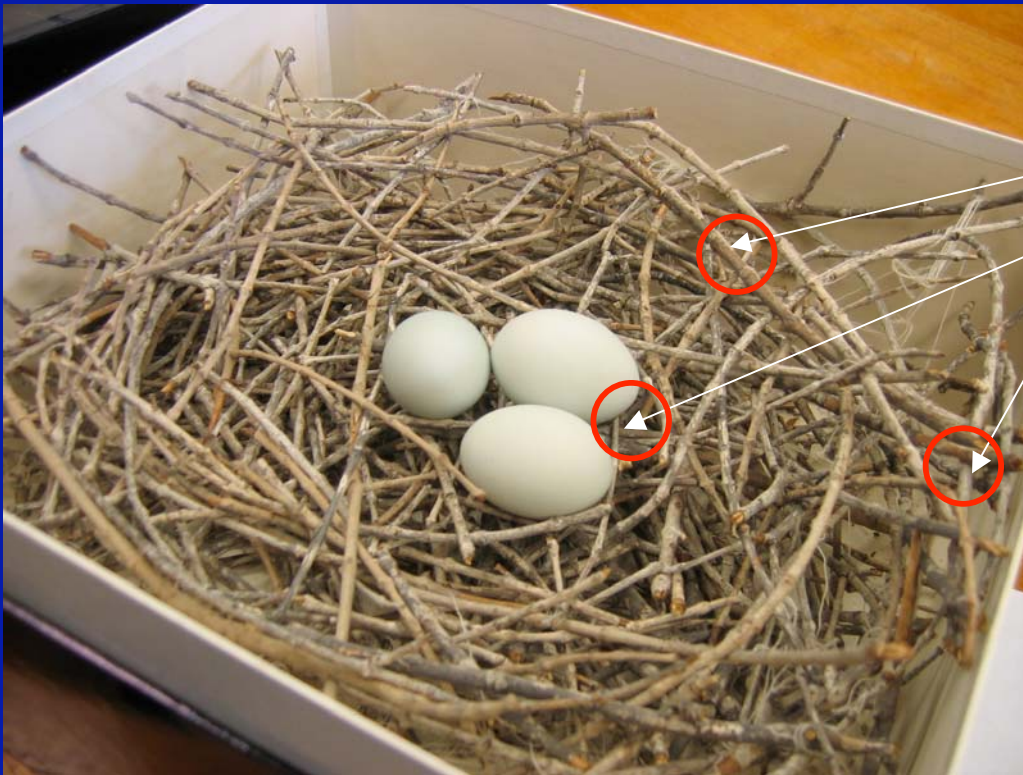


Green Heron



Image courtesy of the U.S.D.A. Forest Service.

Frazer's Green Heron



- A platform model.
- Entirely built with sticks.
- Eggs are locked in the middle.
- The selection of Y-shaped sticks with rough surface makes it easy to build this type of nest.

Dimension: 25 x 18.5 x 5.3 cm ₃

Green Heron

