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TRAVIS AUDUBON SOCIETY

BE A BETTER BIRDER (B3)

2025

CORMORANTS

REFERENCES

- ▶ Field guides
- ▶ Birds of the World

Field identification of Neotropic and Double-crested Cormorants

Cin-Ty Lee
July, 2007

Photographs from Greg Lavaty and Joseph Kennedy

HABIT o WHO?

TAXONOMY (THE TREE OF LIFE)

- ▶ **Domain:** 3 (archaea, bacteria, and eukarya)
- ▶ **Kingdom:** Animalia (animals)
 - ▶ **Phylum:** Chordata (vertebrates)
 - ▶ **Class:** Aves (birds)
 - ▶ **Order:** Suliform
 - ▶ **Family:** *Phalacrocoracidae*
 - ▶ **Genus:** *Phalacrocorax*
 - ▶ **Species:** 2 species in Texas, 6 in ABA
 - ▶ **Subspecies:**

About 42 species of cormorants & shags world-wide



Do Kings Play Chess On Fine Green Silk?

Wettable feathers – help them sink.

TEXAS SULIFORMS

ORDER	FAMILY	GENUS	SPECIES	COMMON NAME
Suliformes	<u>Fregatidae (Frigatebirds)</u>	<i>Fregata</i>	<i>magnificens</i>	Magnificent Frigatebird
	<u>Sulidae (Boobies and Gannets)</u>	<i>Sula</i>	<i>dactylatra</i>	Masked Booby
			<i>nebouxii</i>	Blue-footed Booby
			<i>leucogaster</i>	Brown Booby
			<i>sula</i>	Red-footed Booby
		<i>Morus</i>	<i>bassanus</i>	Northern Gannet
	<u>Anhingidae (Anhingas)</u>	<i>Anhinga</i>	<i>anhinga</i>	Anhinga
<u>Phalacrocoracidae (Cormorants and Shags)</u>	<i>Phalacrocorax</i>	<i>auritus</i>	Double-crested Cormorant	
		<i>brasilianus</i>	Neotropic Cormorant	

Brazilian

Long-eared

“**Anhinga**” -- from the Brazilian Tupi language

"devil bird" or "snake bird"

Relatively short wings for economical “underwater flight”.

4 SPECIES IN TEXAS

ANHINGA



Photo by Jeffrey E. Patterson

NEOTROPIC CORMORANT



Photo by Jeffrey E. Patterson

DOUBLE-CRESTED CORMORANT



Photo by Jeffrey E. Patterson

THE EXTREMELY RARE

**QUADRUPLE-CRESTED
CORMORANT**



Photo by Gautam Apte

ANHINGA

HABIT 1,2 WHERE/WHEN: RANGE



ANHINGA

Dagger-like bill

Long, often curved
neck

Long, fan-like tail



ANHINGA



Photo by Jeffrey E. Patterson

Female

Juvenile

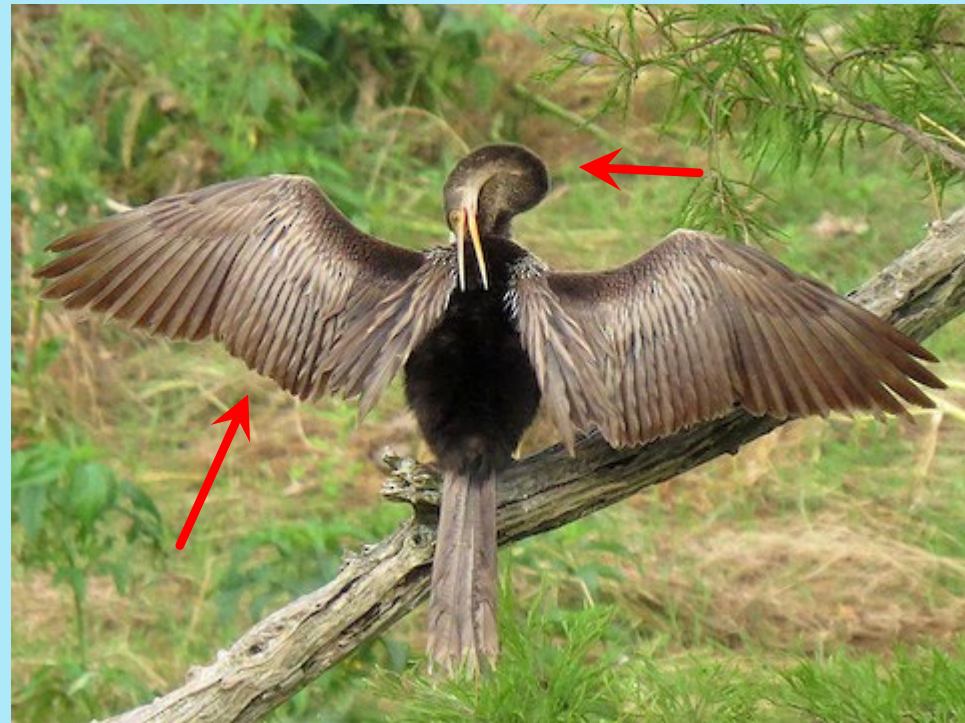


Photo by Wendy Wright

ANHINGA

Spears its
prey

Wettable plumage – helps when
swimming underwater

Much sunning & drying

Need logs & branches for sunning

Photo by Liam Wolfle



Photo by Nickolas Bejarno

ANHINGA



Photo by Lerna H.

Photo by Susan Young

ANHINGA



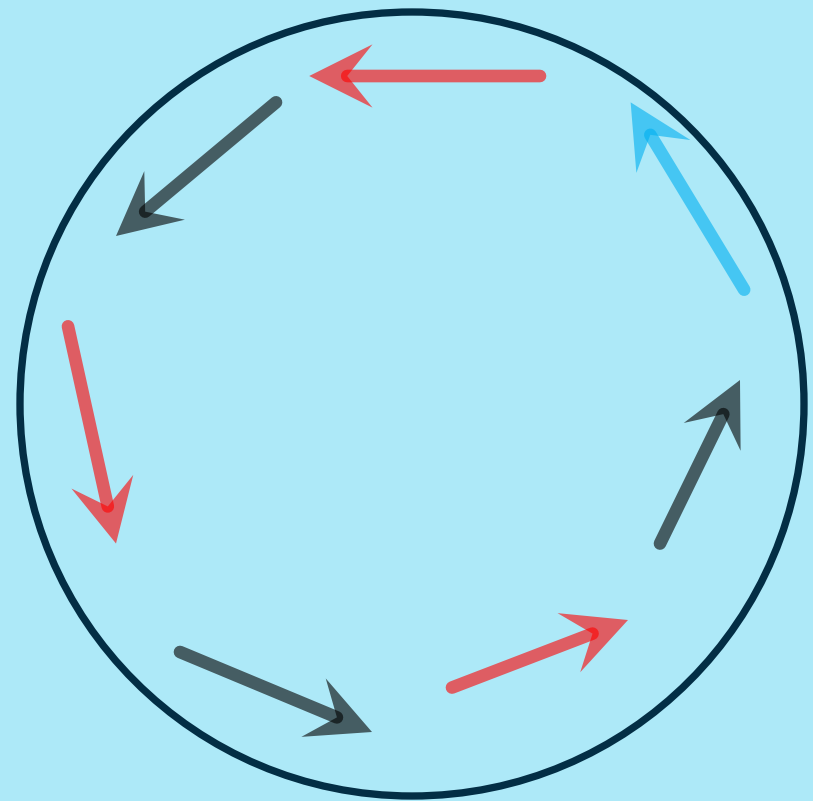
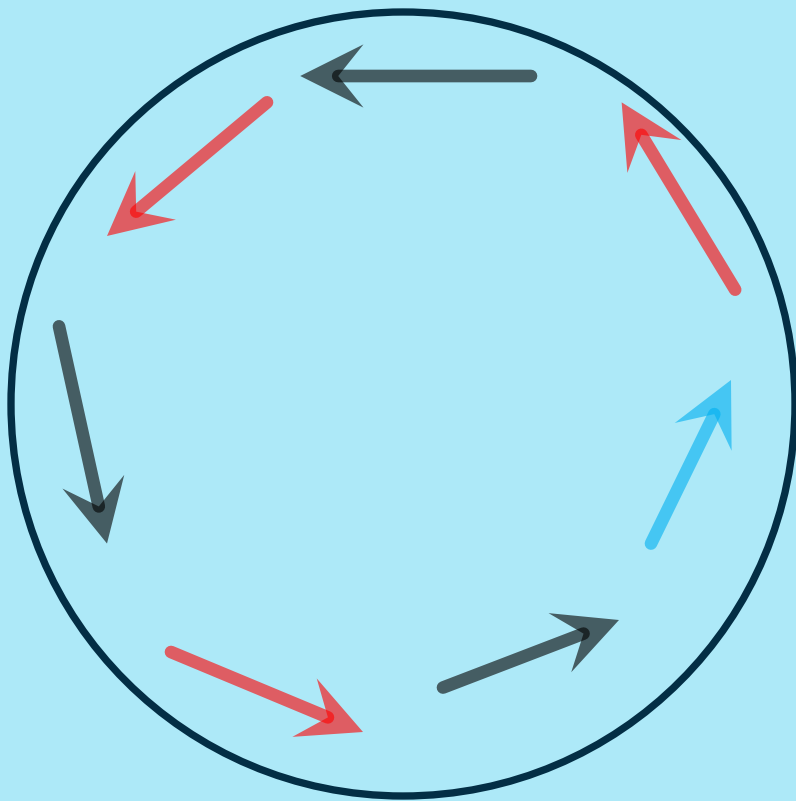
Photo by Jeffrey E. Patterson

BROAD-WINGED HAWKS MIGRATING IN THERMAL

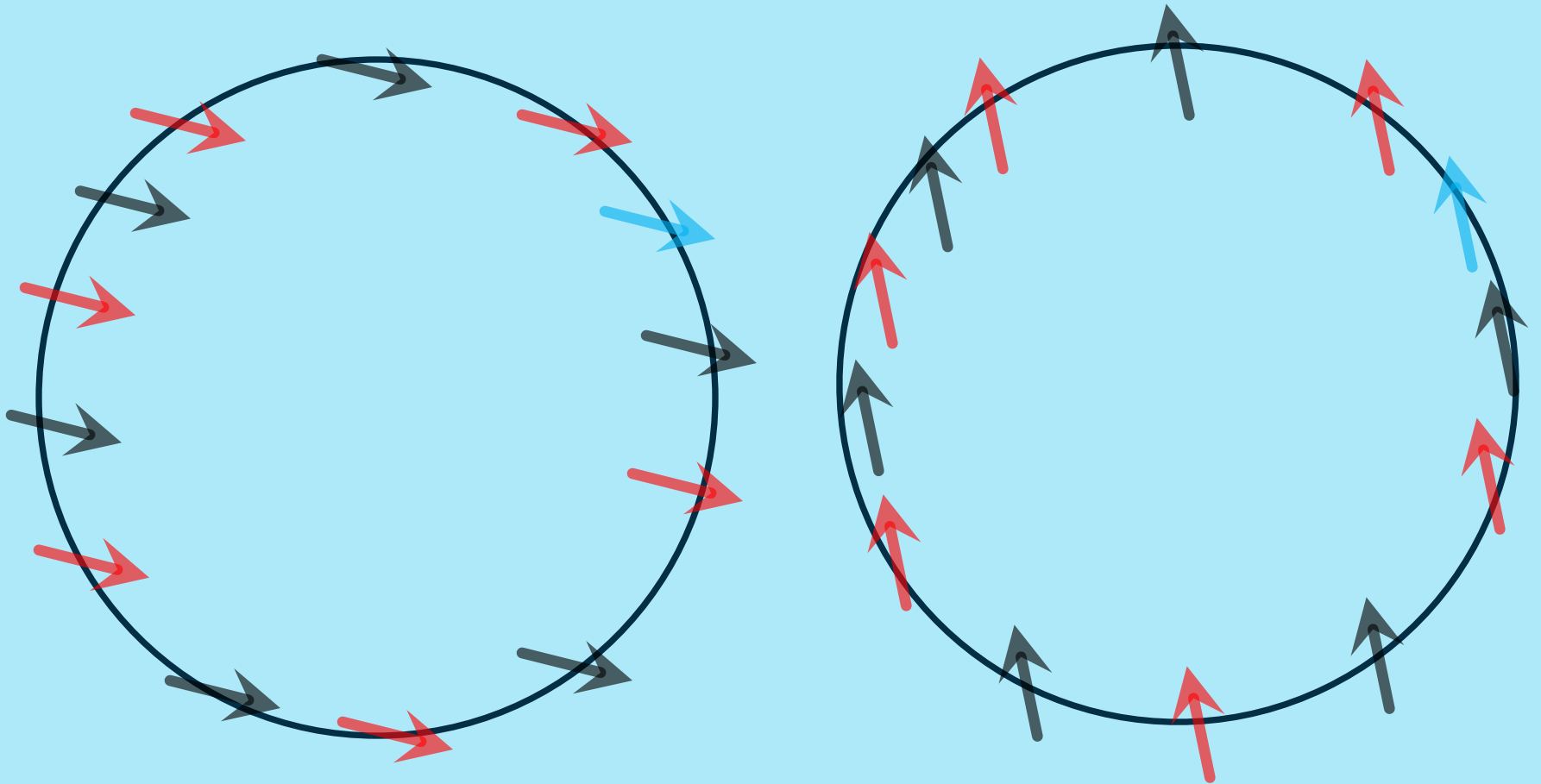


Photo by Jeffrey E. Patterson

BROAD-WINGED HAWKS MIGRATING IN THERMAL



ANHINGAS MIGRATING IN THERMAL

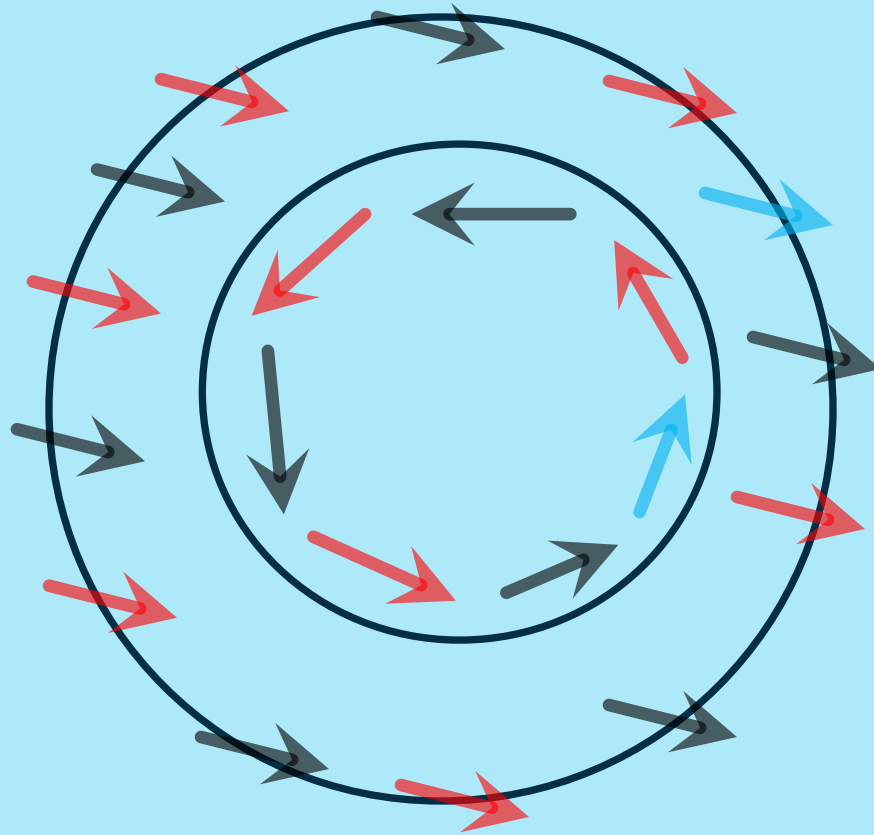


ANHINGAS MIGRATING IN THERMAL



Photos by Jeffrey E Patterson

ANHINGAS & BROADDIES MIGRATING



NEOTROPIC
VS
DOUBLE-CRESTED
CORMORANT

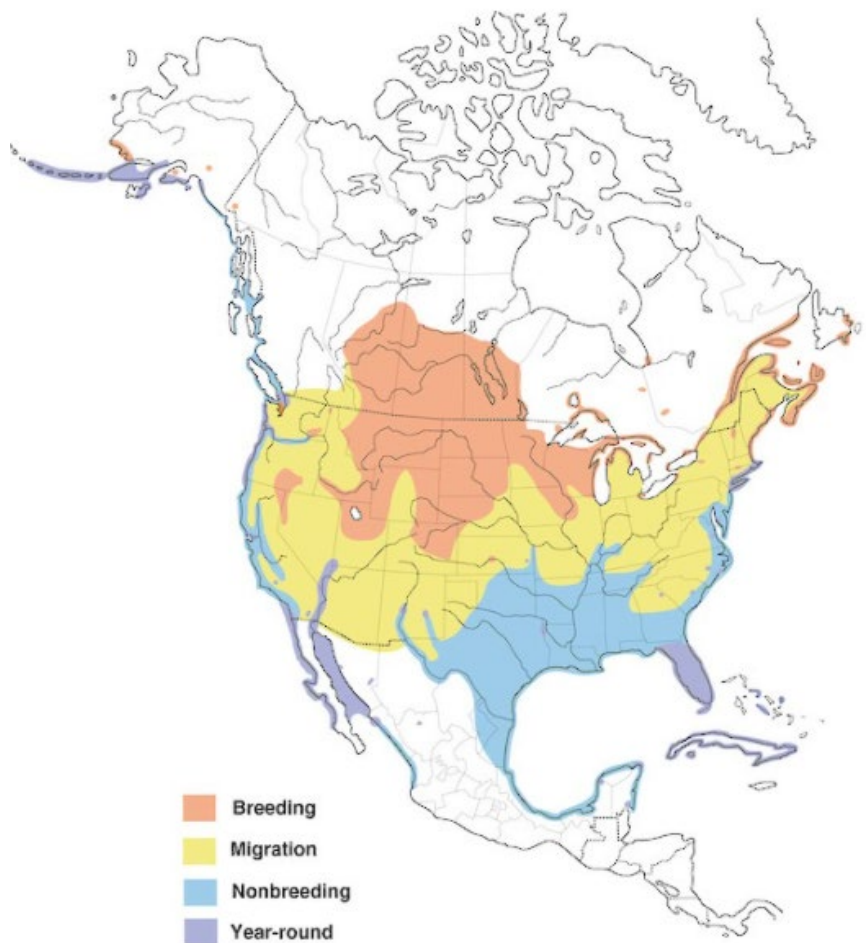
HABIT 1,2 WHERE/WHEN: RANGE

Do you notice a problem with this map?

Neotropic



Double-crested



HABIT 3 WHERE?

HABITAT & MICRO-HABITAT

NEOTROPIC

Versatile: water deep enough for diving, elevated perches, fresh, brackish, or saltwater wetlands

sheltered bays, inlets, estuaries, lagoons, rock outcrops, islands, slow-flowing rivers; rapid mountain streams; Andean lakes 4,000–5,000 m; lowland lakes, marshes, swamps, reservoirs.

Nests and roosts primarily in trees & high points.

DOUBLE-CRESTED

Diverse aquatic habitats

ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines

Nonbreeding birds more widely distributed.

Needs perching locations for loafing and roosting.

Forage mostly in shallow water within 2.5 km of shore.



Who
remembers
earlier name
of the
Neotropic?

NEOTROPIC FUN FACTS



“This species' distinctive piglike voice is responsible for some descriptive but uncomplimentary Spanish names,”

Birds of the World

Formerly
called
“Olivaceous
Cormorant”

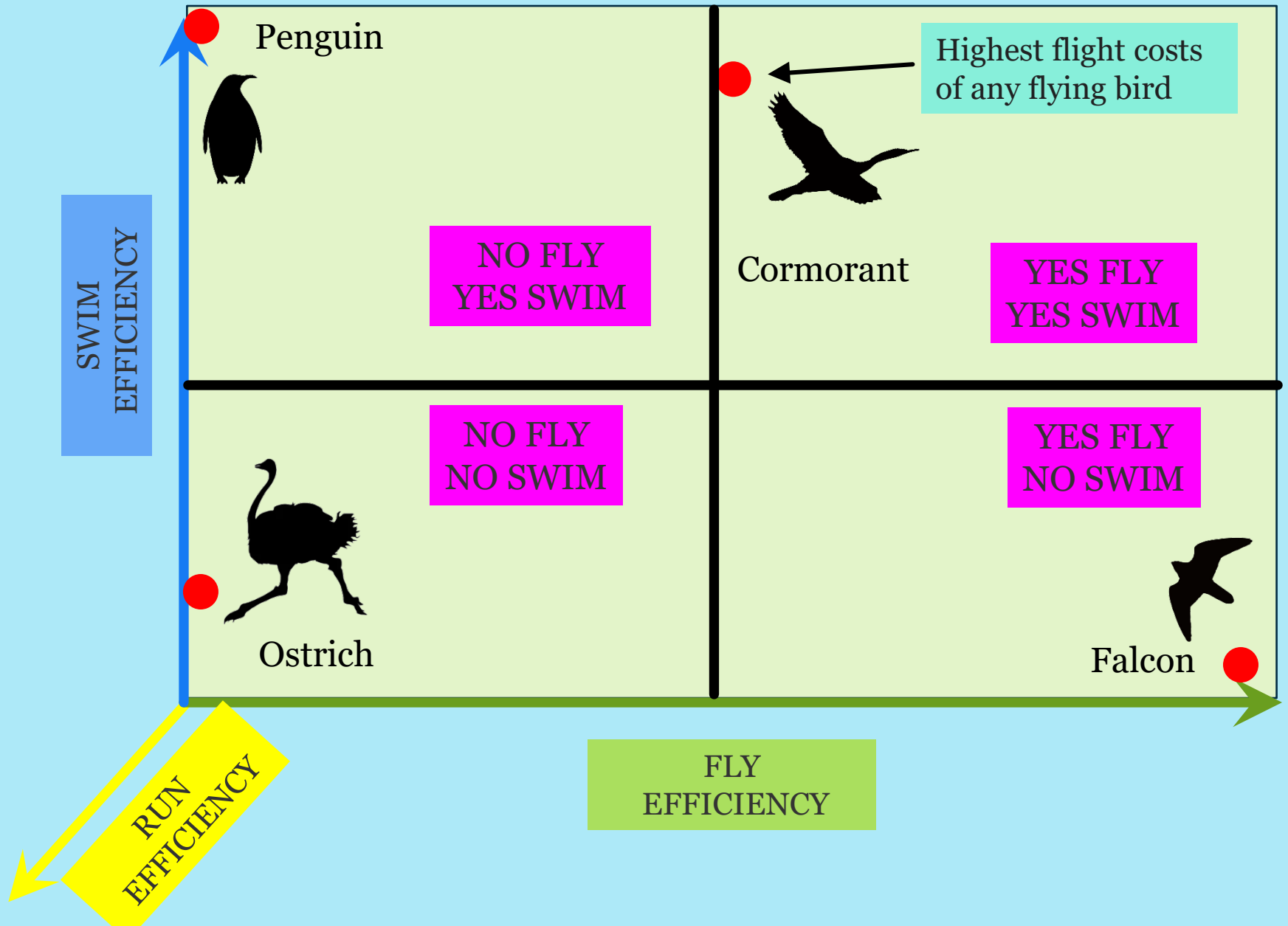
“pig duck”

“unclean duck”

“dirty duck”

“grunting duck”

As wings become more efficient for swimming, they become less efficient for flying.



MOVIES

Puffin Swimming

<https://youtu.be/J2IhyCPEE-A>

Puffin Flying

https://youtu.be/s6hI_eOcoQQ

Swimming Cormorant & Anhinga

<https://youtu.be/FJtF4VvKBTA>

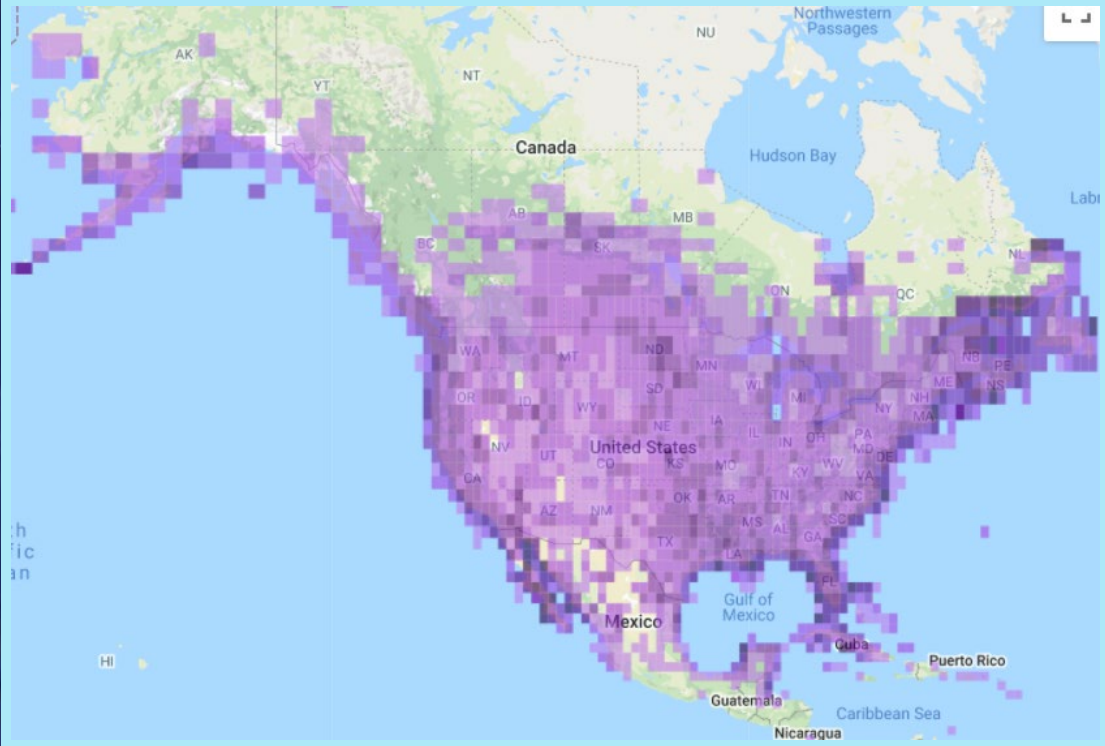
What's an issue with these maps?

Neotropic



EBIRD FREQUENCY MAP

Double-crested



HABIT 1,2 WHERE/WHEN? ABUNDANCE MAP

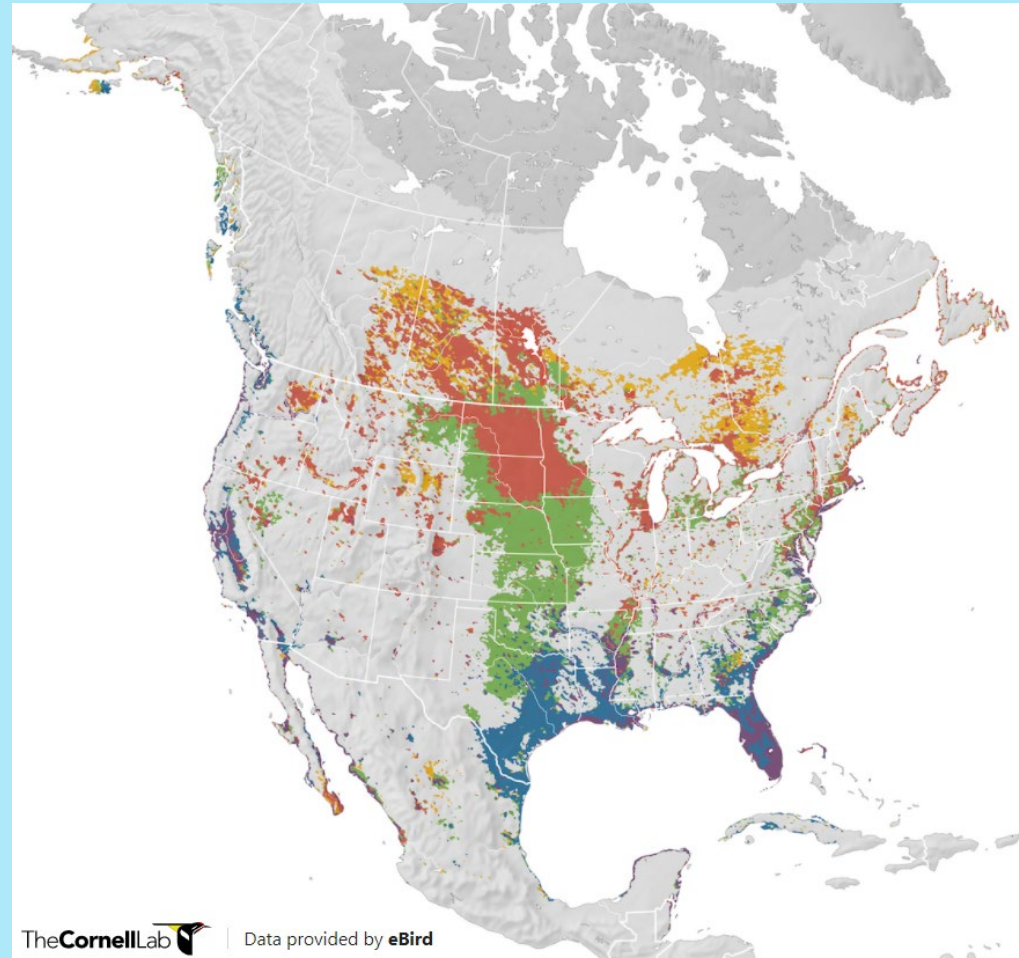
Neotropic

Abundance – not just occurrence

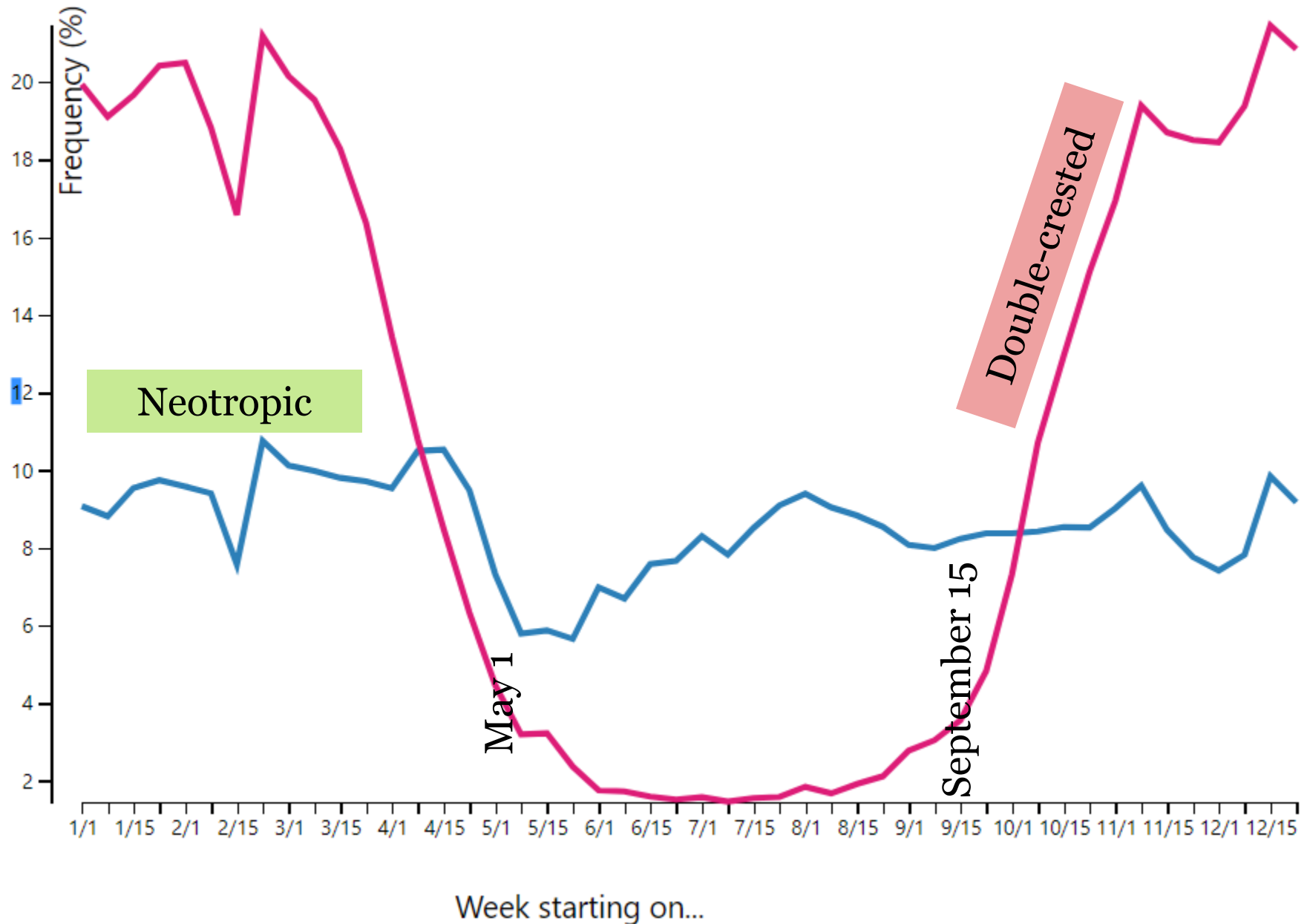
Ebird sightings data; + habitat data

Population trends map – coming soon

Double-crested



HABIT 2 WHEN FREQUENCY IN TEXAS



ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

Reliability ↑

a) Color & shape of gular

b) Color of lores

c) Length (& shape) of tail

d) Size & GISS

e) Covert & scapular feather shape

f) Angle of back (in-flight)

g) Size of bill ??

Diagnostic

Supporting

ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

Reliability ↑

a) Color & shape of gular

b) Color of lores

c) Length (& shape) of tail

d) Size & GISS

e) Covert & scapular feather shape

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Diagnostic

Supporting

ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

Reliability



- a) Color & shape of gular
- b) Color of lores
- c) Length (& shape) of tail
- d) **Size & GISS**
- e) Covert & scapular feather shape
- f) Angle of back (in-flight)
- g) Size of bill ??

Neotropic

Double-crested

Smaller,
more slender,
longer tail



Photo by Rich B Young

Smaller bill
(proportionately
about equal)

Double-crested

Neotropic



Photo by Joseph Morlan

Double-crested

Neotropic





Neotropic

Double-crested

Two cormorants are perched on a piece of driftwood in a body of water. The bird on the left is smaller and has its head turned back. The bird on the right is larger and has its head turned forward. Both birds have dark, scaly feathers and long, hooked bills. The water is blue with ripples. There are some green and brown plants in the foreground, slightly out of focus.

Neotropic

Double-crested

IN FLIGHT

FLIGHT GISS

CORMORANTS VS DUCKS

▶ Ducks in flight

▶ <https://youtu.be/mdDoKkS-1SM>

▶ Pintails in flight

▶ https://www.youtube.com/watch?v=AQweA_9IGEA

▶ <https://jepbirding.com/b3-class-6-2025-2/>



Photo by Dave Spier

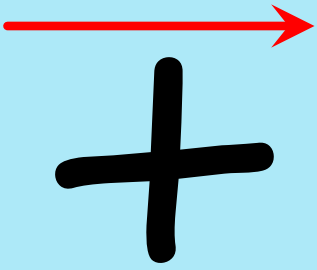
ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

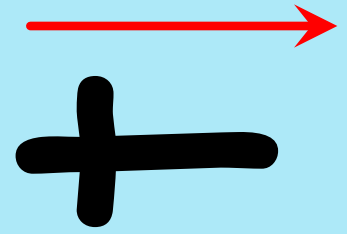
Reliability



- a) Color & shape of gular
- b) Color of lores
- c) Length (& shape) of tail
- d) Size & GISS
- e) Covert & scapular feather shape
- f) Angle of back (in-flight)
- g) Size of bill ??



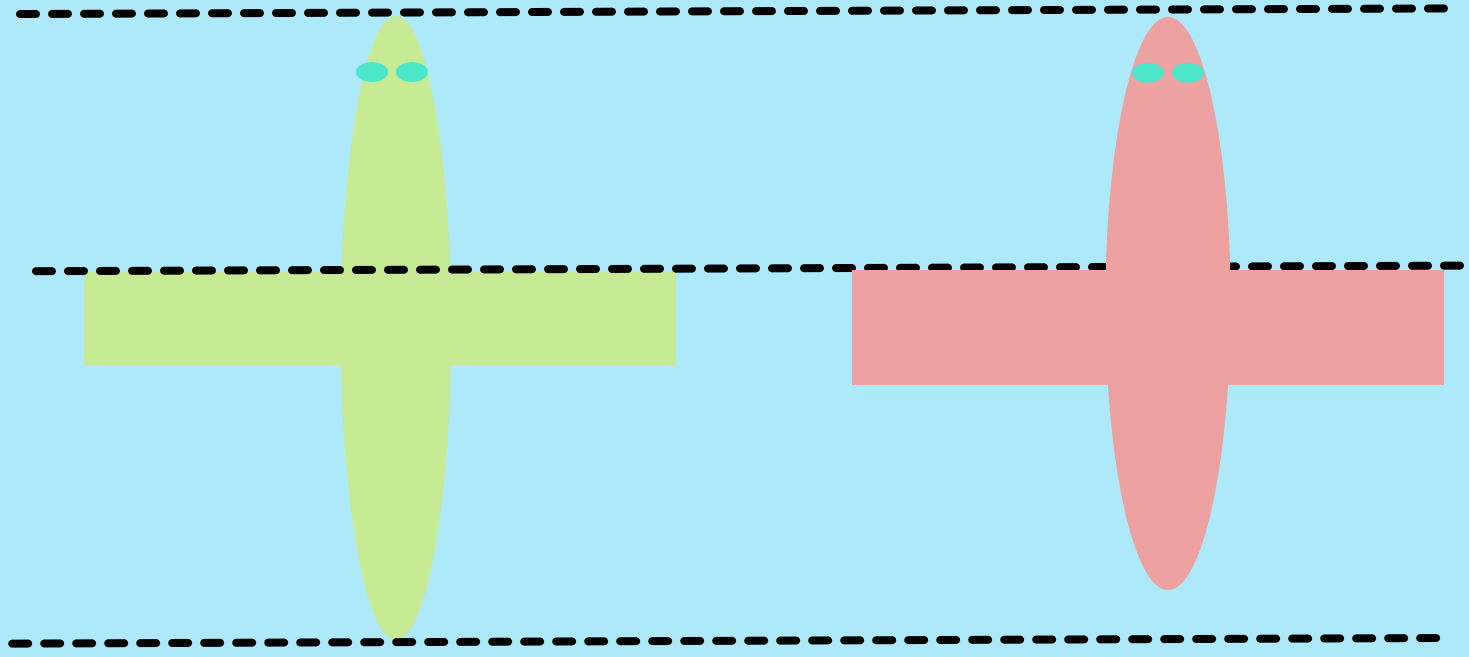
IN FLIGHT



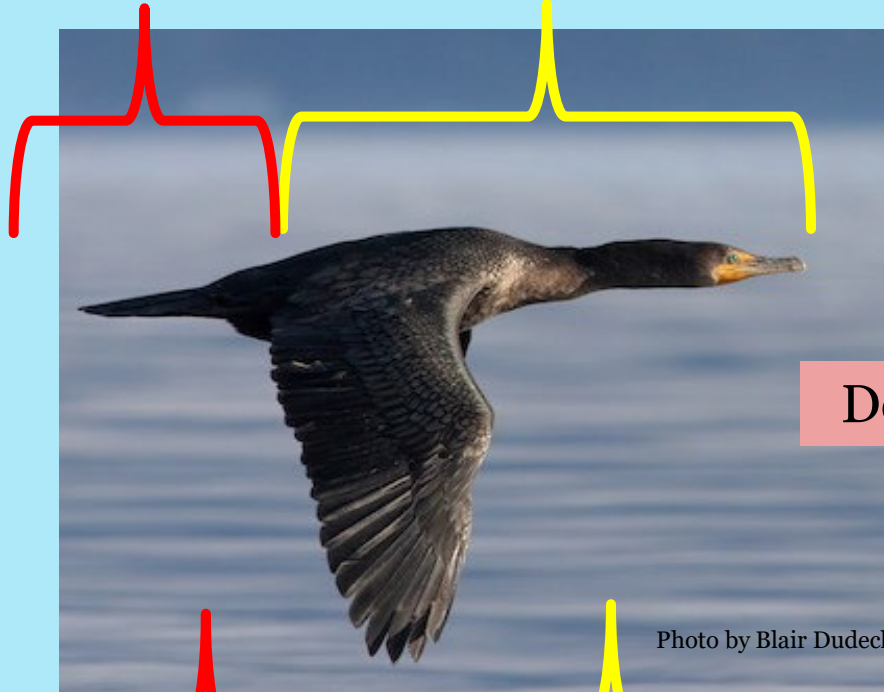
Neotropic

Double-crested

Flying Direction



IN FLIGHT



Double-crested

Photo by Blair Dudeck

+

Neotropic

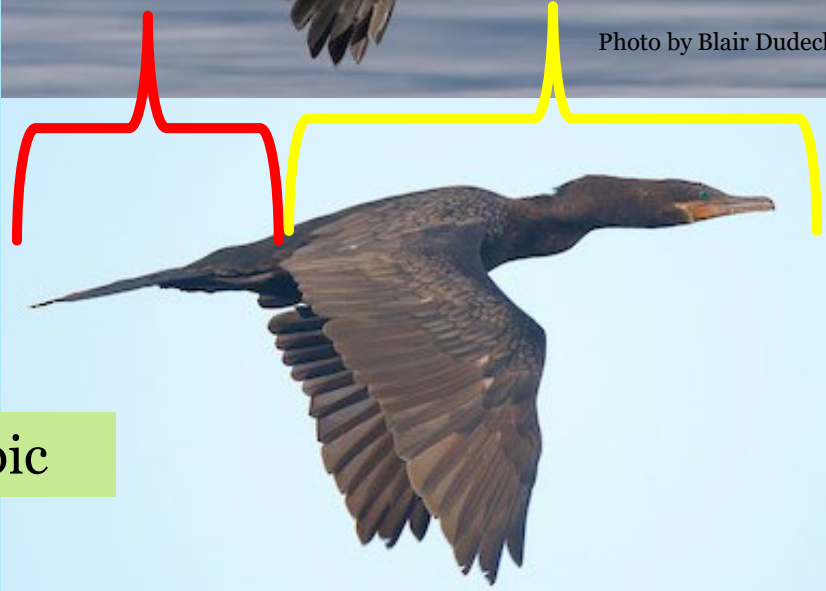


Photo by Harlan Stewart

IN FLIGHT



Double-crested

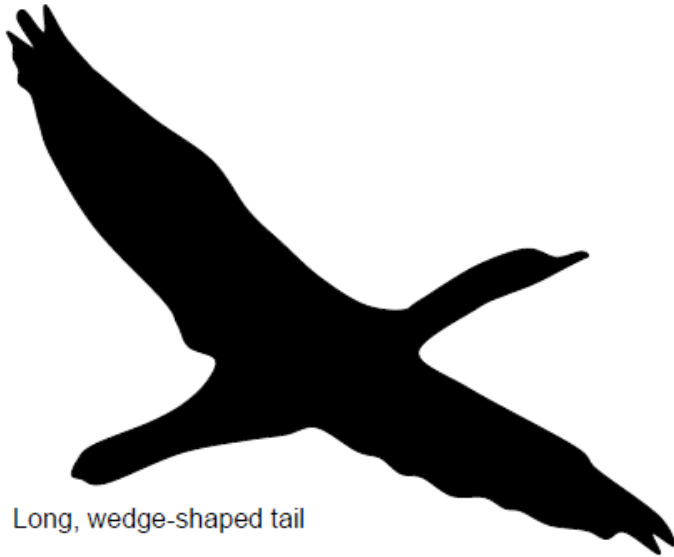


Neotropic

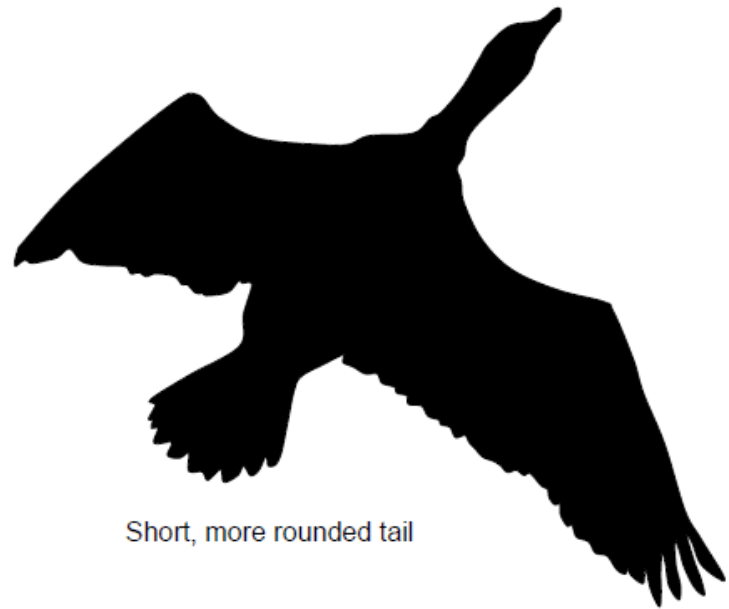
SHAPE OF TAIL

Neotropic

Double-crested



Long, wedge-shaped tail



Short, more rounded tail

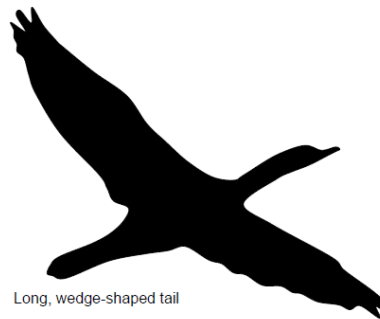
Cin-Ty Lee July 2007

Neotropic



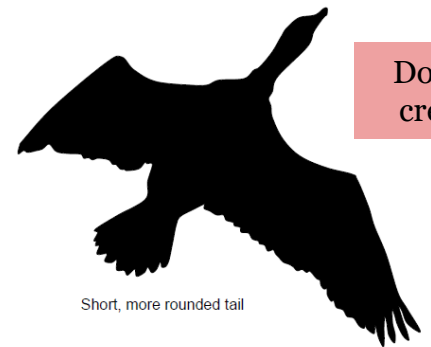
TAIL

Double-crested



Long, wedge-shaped tail

Neotropic

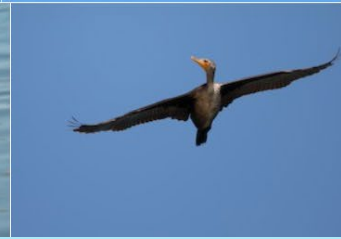


Short, more rounded tail

Double-crested



Double-crested Cormorant © Ryan Sanderson



Neotropic Cormorant © Amed Hernández



Double-crested

TAIL


Neotropic



Photo by Jeffrey E. Patterson

ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

- 
- a) **Color & shape of gular**
 - b) Color of lores
 - c) Length (& shape) of tail
 - d) Size & GISS
 - e) Covert & scapular feather shape
 - f) Angle of back (in-flight)
 - g) Size of bill ??

Reliability

SHAPE OF GULAR

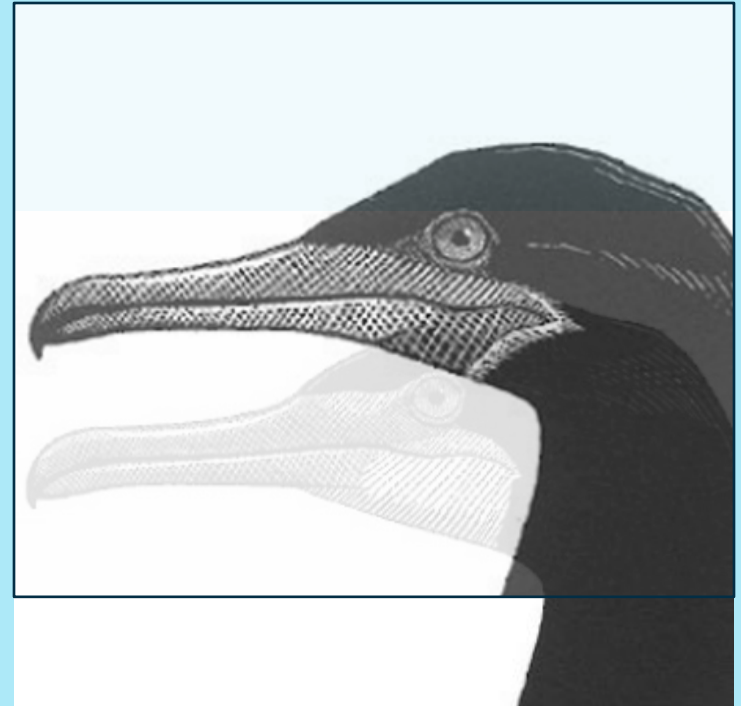
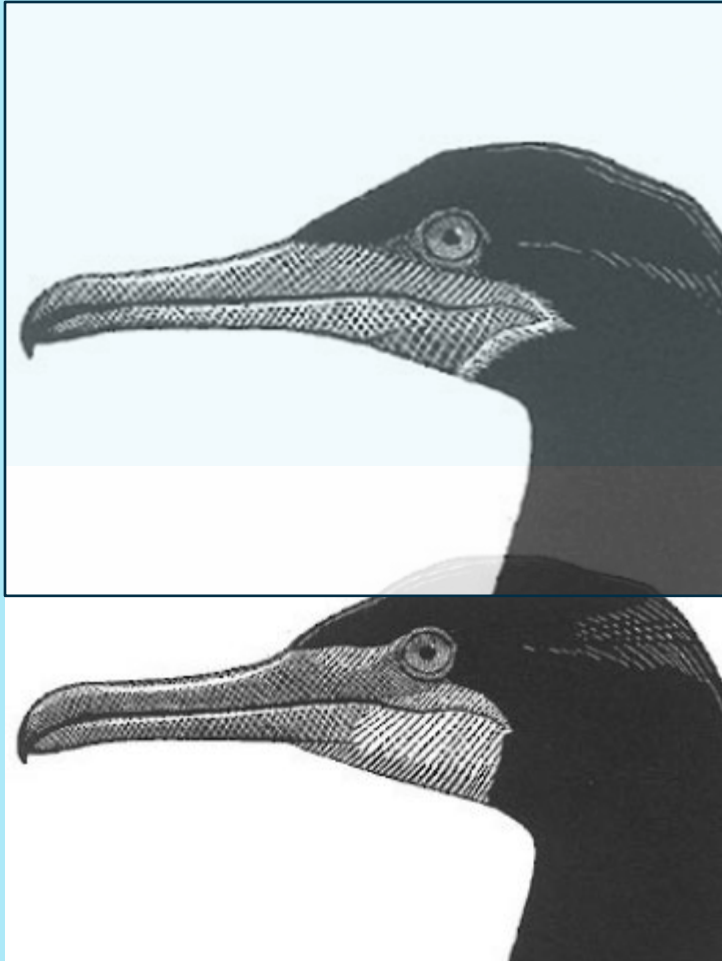
Double-crested



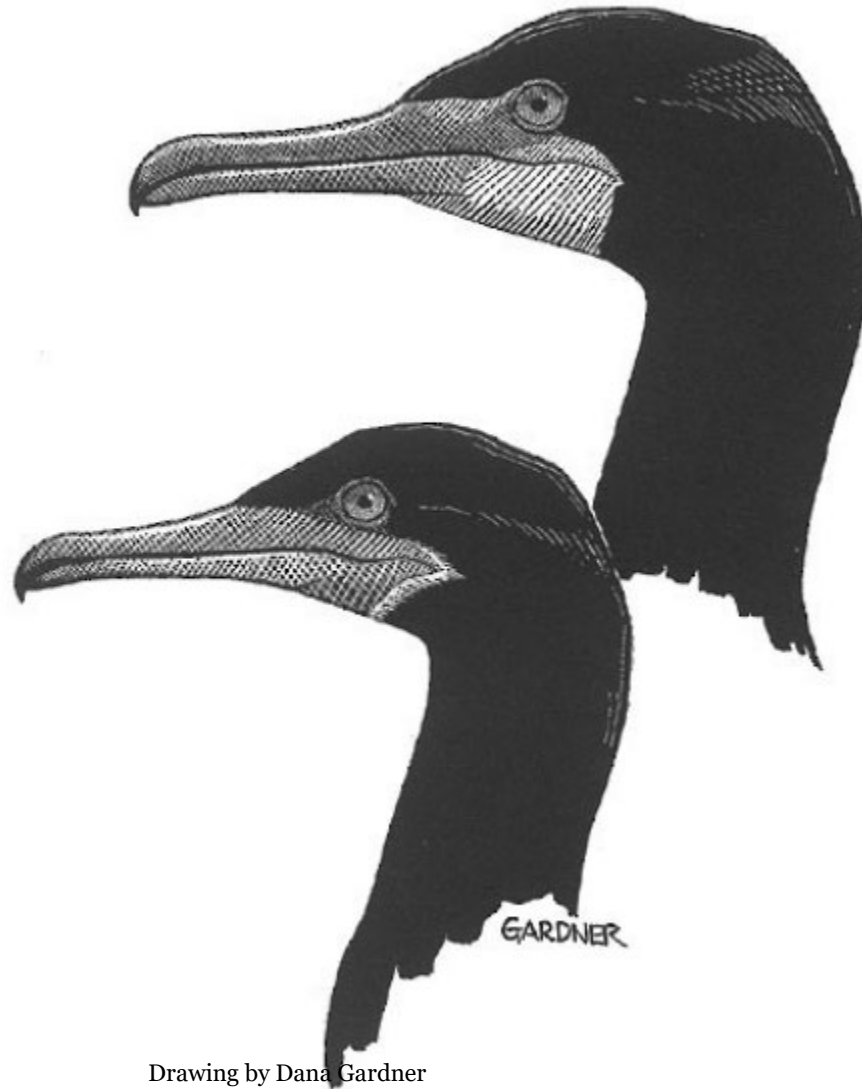
Neotropic



PROPORTIONS
ARE
PRETTY SIMILAR



SHAPE OF GULAR



Drawing by Dana Gardner

SHAPE OF GULAR



Photo by Allisson Cafeseiro



Photo by Jeffrey E Patterson

Neotropic



Photo by Van Remson



Photo by Andrew Simon

Double-crested



Photo by Marco Silva



Photo by Levi Plummer

ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

- a) Color & shape of gular
- b) **Color of lores**
- c) Length (& shape) of tail
- d) Size & GISS
- e) Covert & scapular feather shape
- f) Angle of back (in-flight)
- g) Size of bill ??

Reliability



COLOR OF LORES



Drawing by Allisson Cafeseiro



Drawing by Jeffrey E Patterson

Neotropic



Drawing by Van Remson



Drawing by Andrew Simon

Double-crested



Drawing by Marco Silva



Drawing by Levi Plummer

JUVENILE NEOTROPIC CAN HAVE YELLOW LORES



Juvenile Neotropic
Cormorant
July 2007, Bolivar Flats

Although most field guides say that Neotropics never have yellow lores, juvenile Neotropics like this one can have extensively yellow lores. These birds are often the source of many summer cormorants misidentified along the Upper Texas Coast as Double-crested (which are rare in summer).



Features indicating Neotropic here are
pointed rear of gular
long, wedge-shaped tail
very pointed scapular and mantle feathers
small bill with less of a bulbous tip

Cin-Ty Lee July 2007

ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

Reliability



- a) Color & shape of gular
- b) Color of lores
- c) Length (& shape) of tail
- d) Size & GISS
- e) Covert & scapular feather shape
- f) Angle of back (in-flight)
- g) Size of bill ??

Mantle and covert feathers

Pointed mantle and covert feathers

Neotropic



Field identification of Neotropic and Double-crested Cormorants

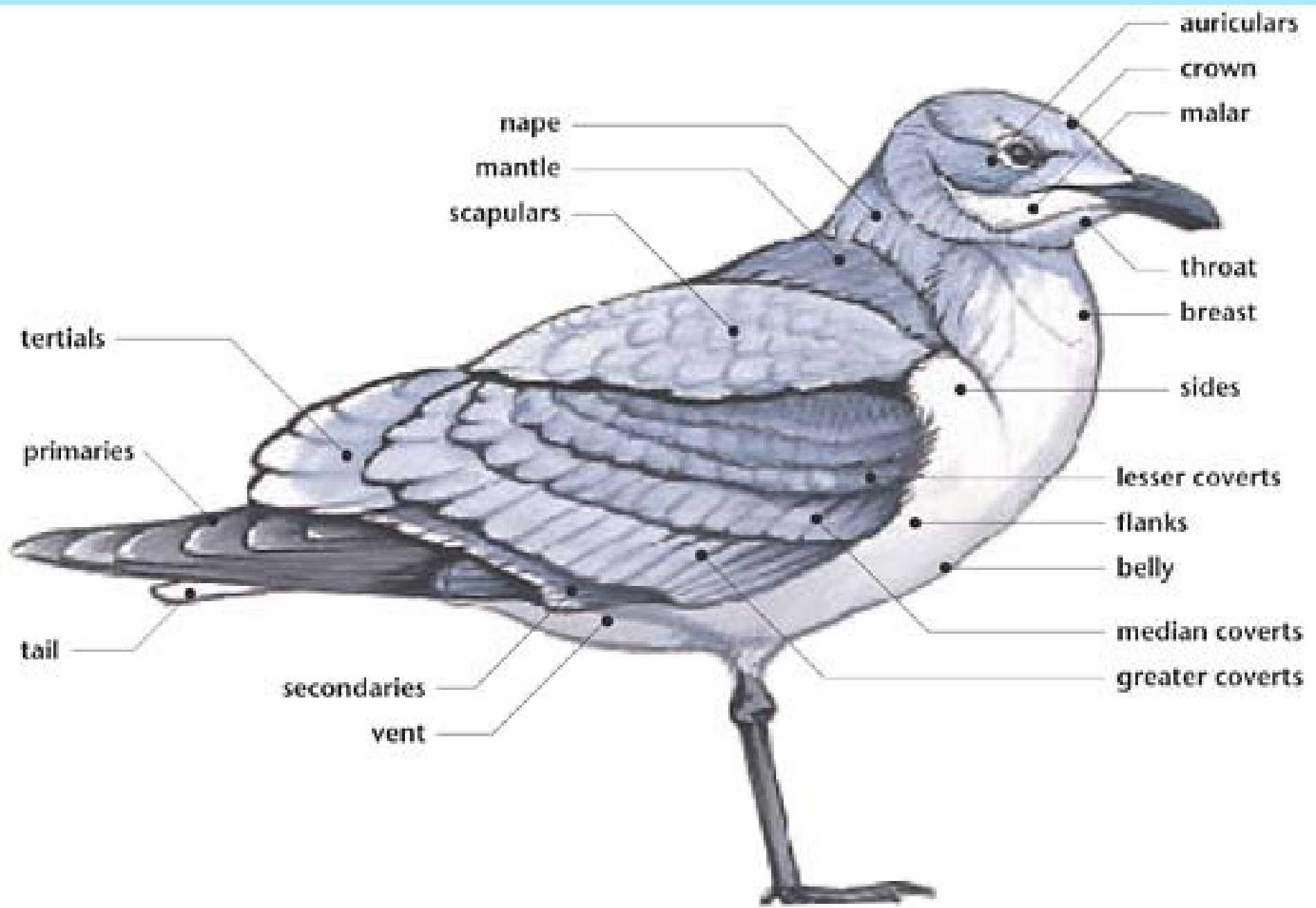
Cin-Ty Lee
July, 2007

Photographs from Greg Lavaty and Joseph Kennedy

Less pointed mantle and covert feathers

Double-crested





auriculars

crown

malar

nape

mantle

scapulars

throat

breast

tertials

sides

primaries

lesser coverts

flanks

belly

tail

median coverts

greater coverts

secondaries

vent

CORMORANT FEATHER GROUPS QUIZ

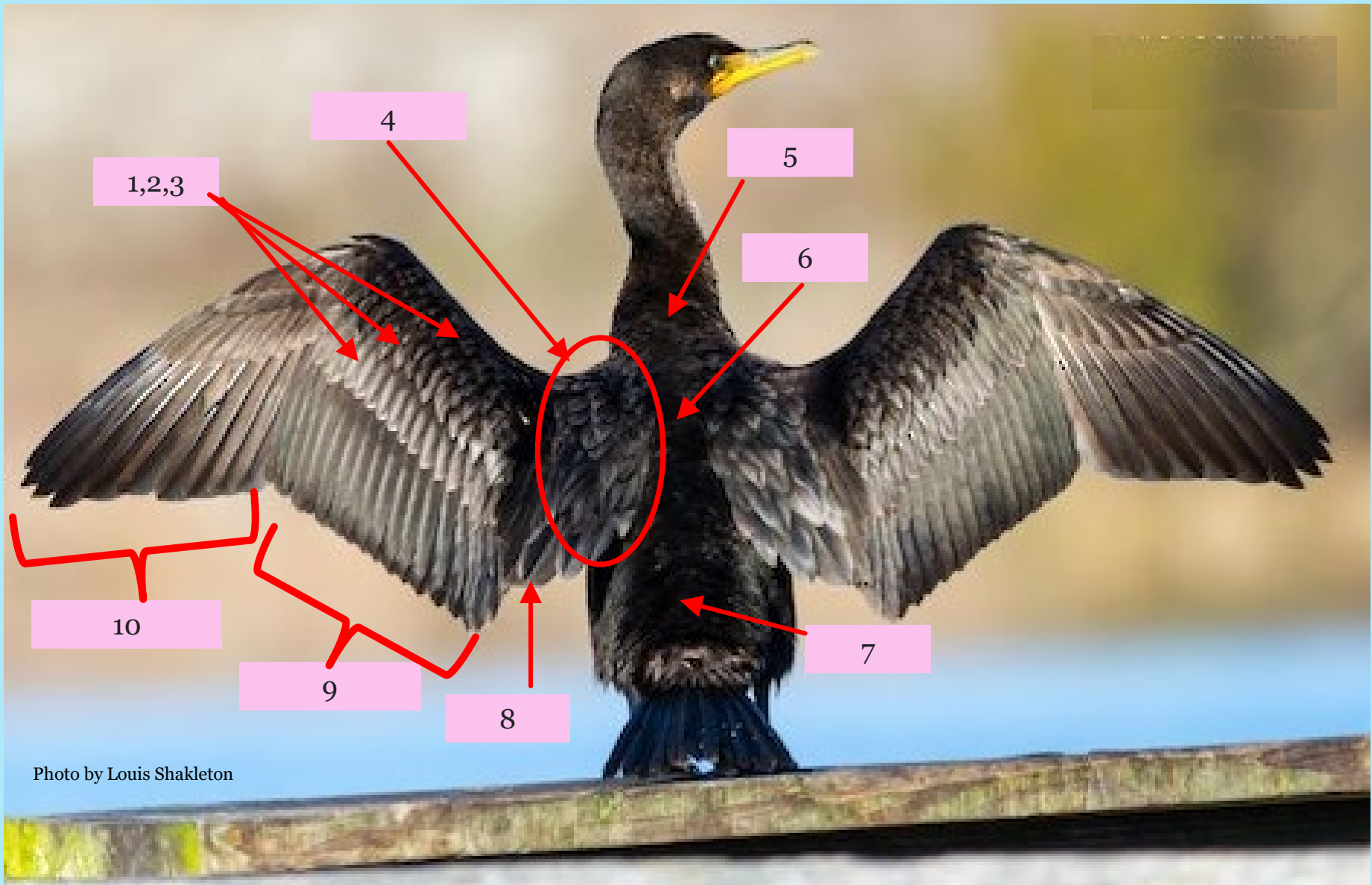
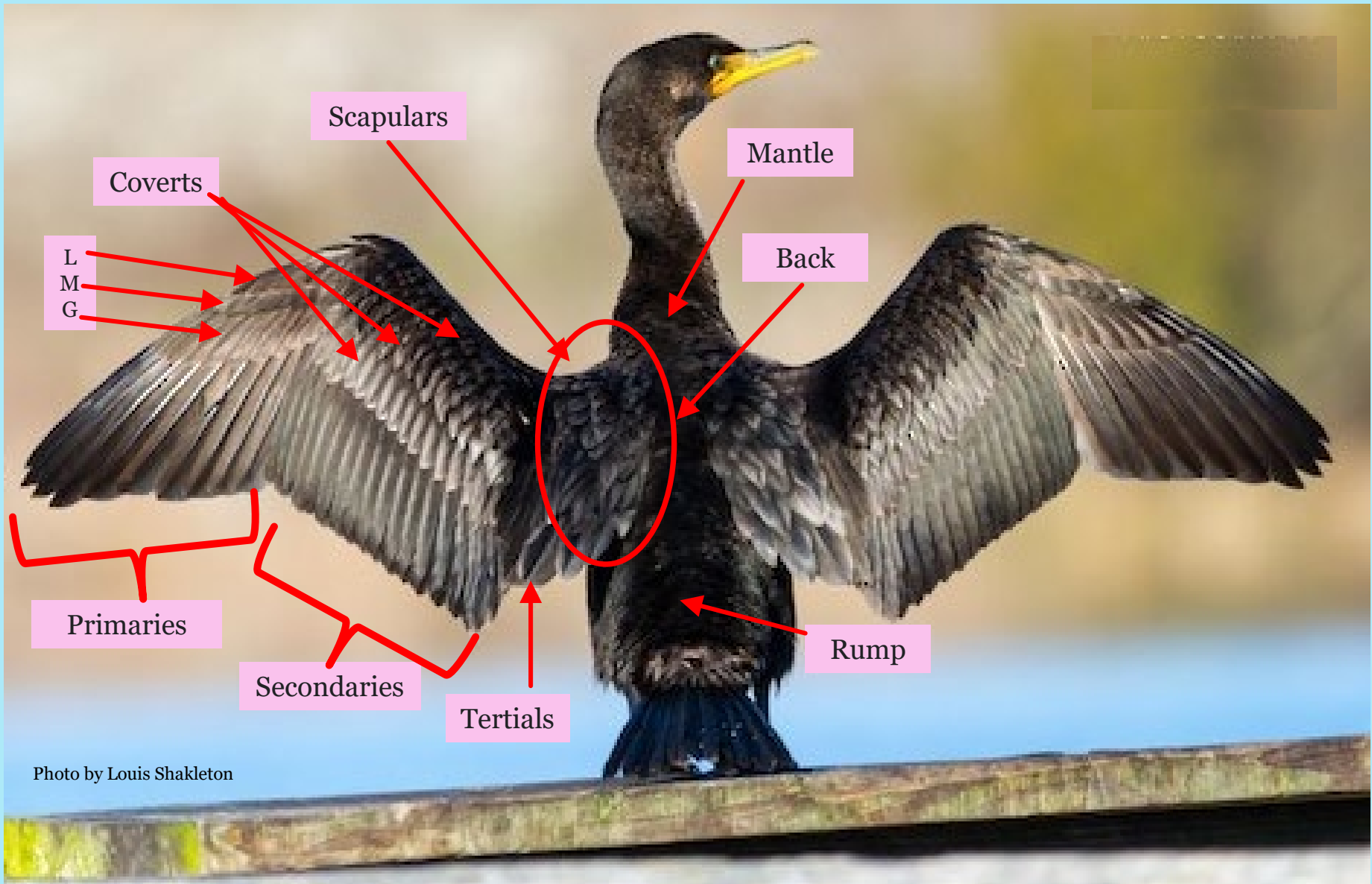


Photo by Louis Shakleton

CORMORANT FEATHER GROUPS



SCAPULARS



SCAPULARS



COVERT & SCAPULAR FEATHER SHAPES



Neotropical



Photo by Cathy Millington

Double-crested

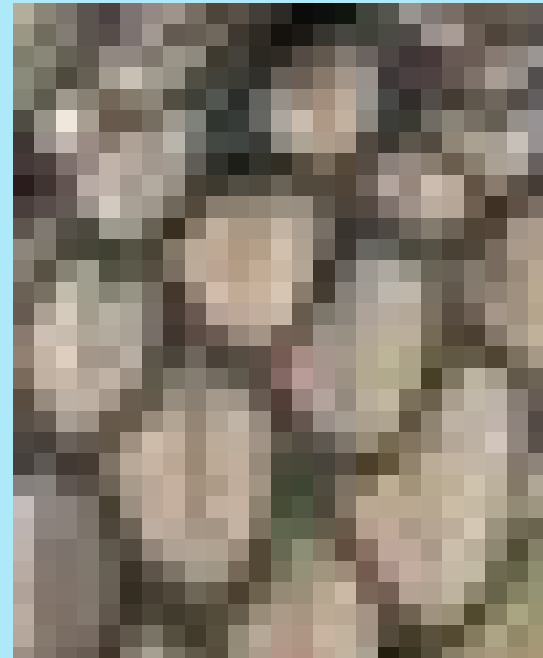


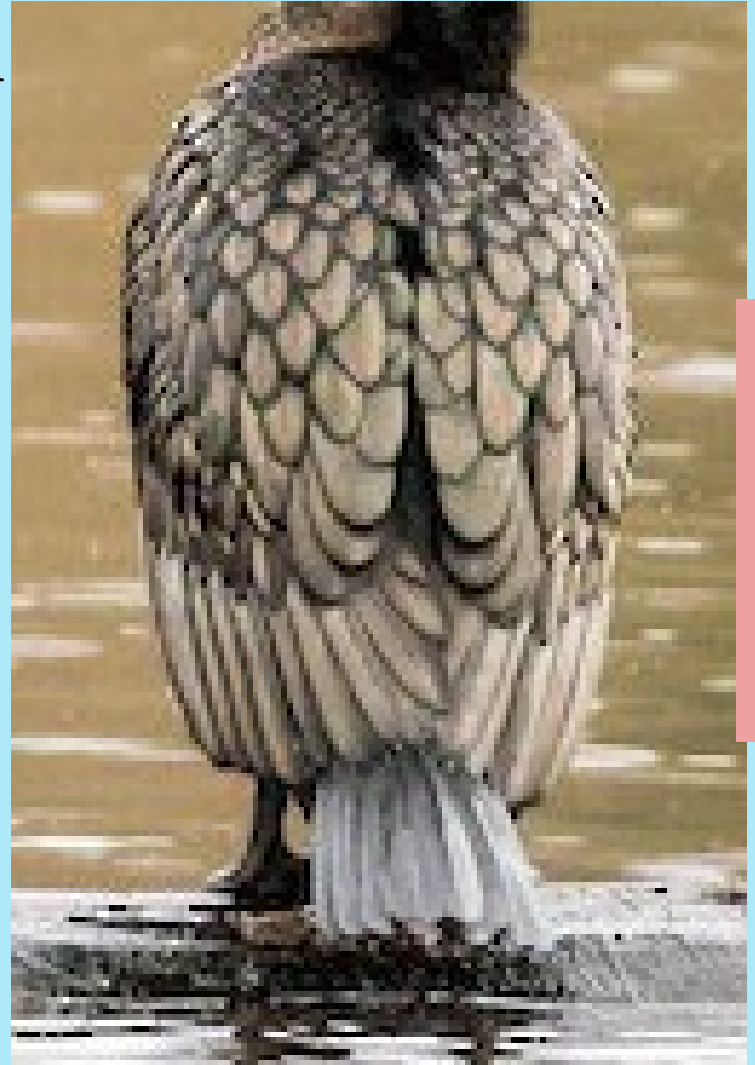
Photo by John Reynolds

COVERT & MANTLE SCAPULAR FEATHER

Neotropic



Photo by Cathy Millington



Double-crested

Photo by John Reynolds

Neotropic



Photo by Roni Martinez

COVERT & SCAPULAR FEATHER SHAPES



Double-crested

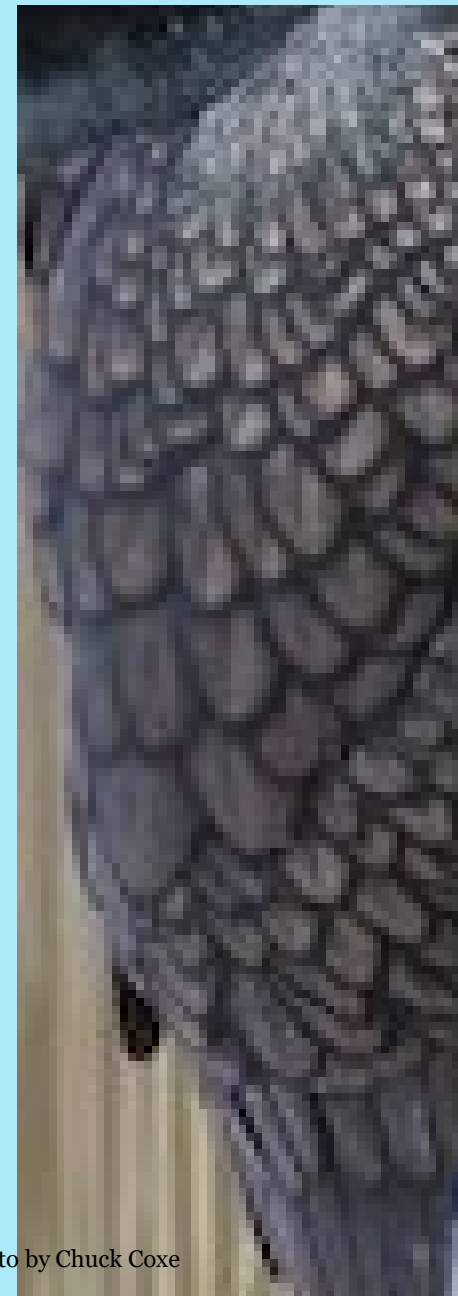
Photo by Joseph Blowers

COVERT & SCAPULAR FEATHER SHAPES

Neotropic



Photo by Phil Kahler



Double-crested

Photo by Chuck Cox

ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

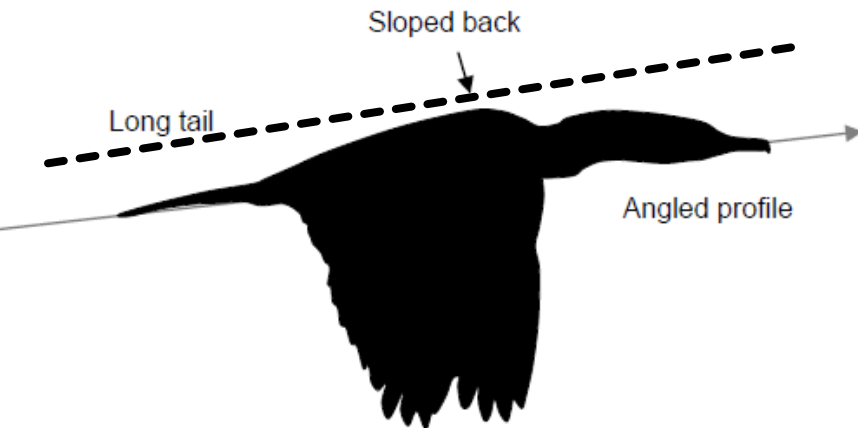
Reliability



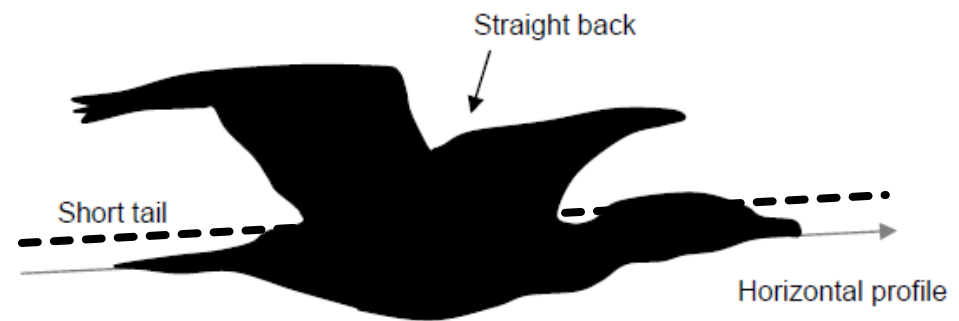
- a) Color & shape of gular
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- c) Length (& shape) of tail
- d) Size & GISS
- e) Covert & scapular feather shape
- f) Angle of back (in-flight)
- g) Size of bill ??

ANGLE OF BACK

Neotropic



Double-crested



Cin-Ty Lee July 2007

Neotropic

ANGLE OF BACK



Photo by Ted Keyel

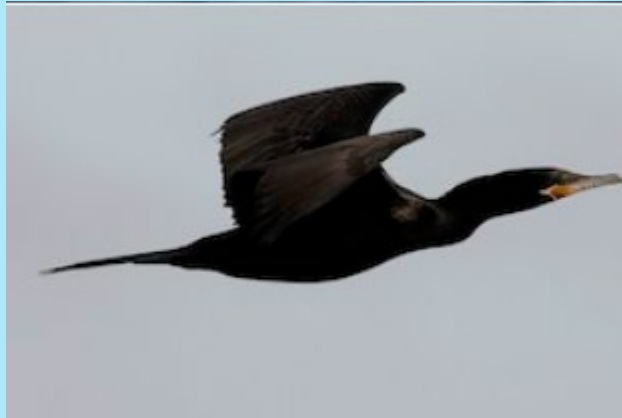


Photo by Ted Keyel



Photo by Amon Hernandez

Holds up pretty well, but not 100%.
Very much subject to angle of view & posture of bird.



Photo by Blair Dudek



Photo by Allan Chartier



Photo by Kieth McCollough

Double-crested

ID OVERVIEW

NEOTROPIC VS DOUBLE-CRESTED

Reliability



- a) Color & shape of gular
- b) Color of lores
- c) Length (& shape) of tail
- d) Size & GISS
- e) Covert & scapular feather shape
- f) Angle of back (in-flight)
- g) **Size of bill ??**

HABIT 7 DIAGNOSTIC FIELD MARKS

Neotropic



Double-crested

BILL PROPORTIONS



Photo by Dan Rauch





Film by Carlos Otávio Araujo Gussoni

https://macaulaylibrary.org/asset/201721601#_ga=2.142969394.64805408.1613098237-909813350.1609005301

IMMATURES

- More difficult
- Gular pouches – duller

Neotropic

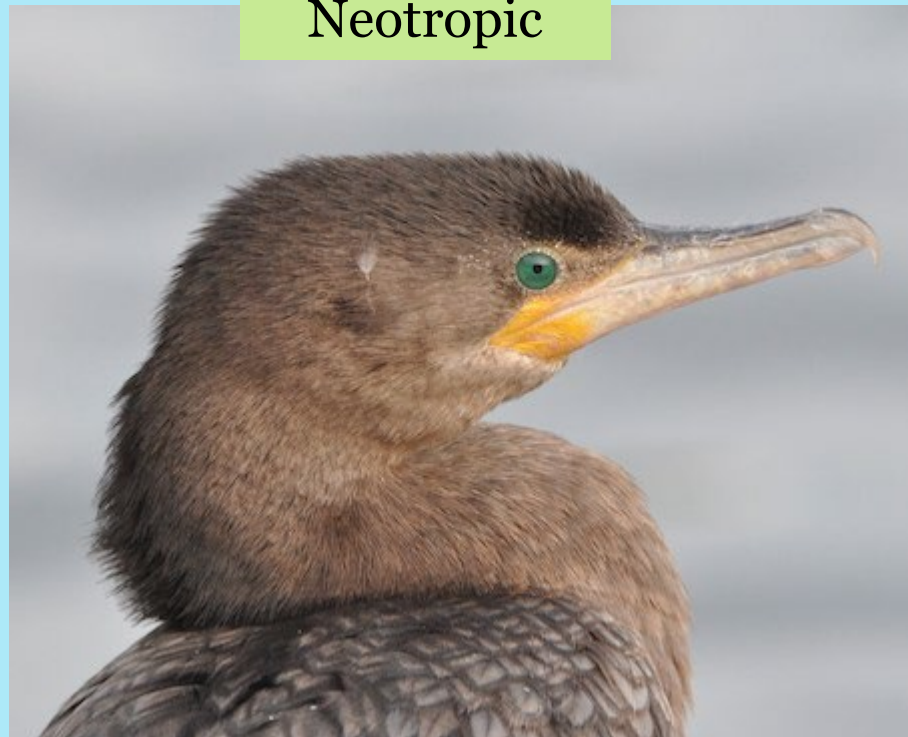


Photo by David Baudette

Double-crested



Photo by Ian Hearn

IMMATURES

- Color of supraloral
 - Neotropic – Darker
 - Double-crested – Brighter

Neotropic



Photo by Van Remson

Double-crested



Photo by Aiden Kiley

IMMATURES

- Neotropics – more uniform in color
- Double-crested – more bi-color & quite variable
 - Varies from cream to black

Neotropic



Double-crested



QUIZ

QUIZ BIRDS 1 & 2

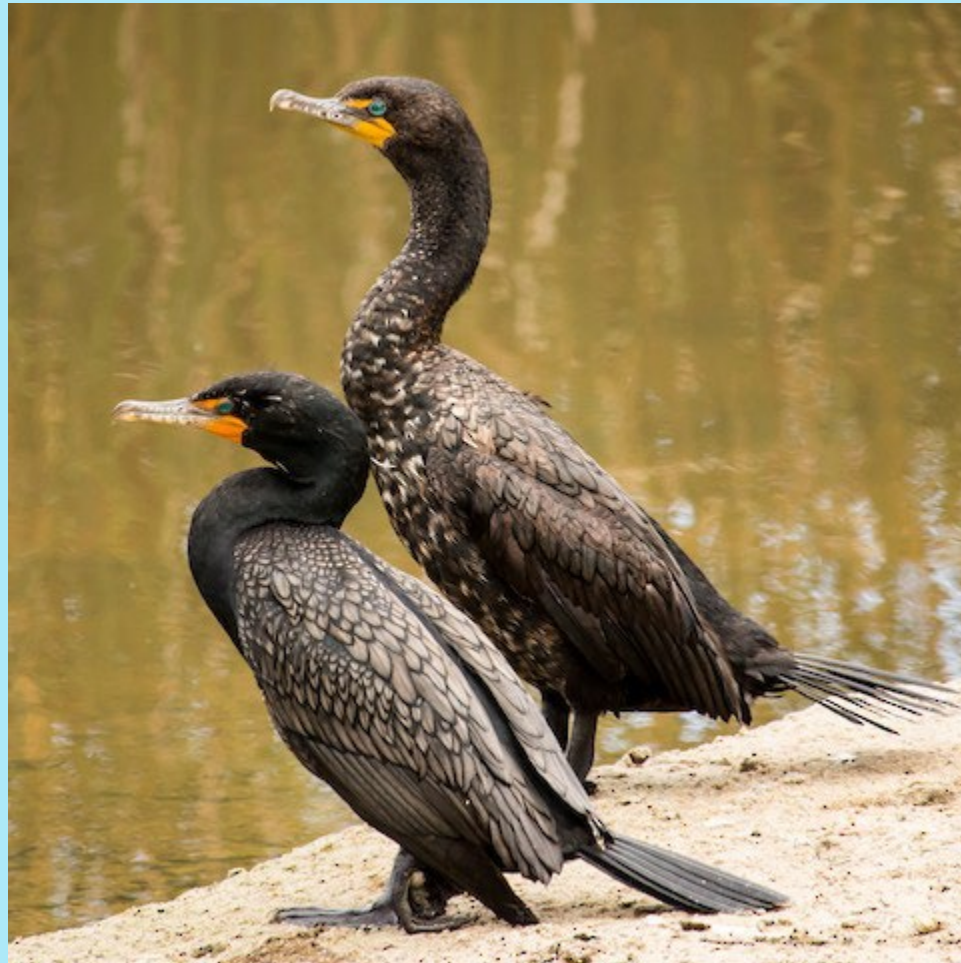


Photo by Carole Rose

QUIZ BIRD 3



Photo by Ian Hearn

QUIZ BIRD 4



Photo by Derek Heimister

QUIZ BIRD 5



QUIZ BIRD 6



Photo by Mark Daly

QUIZ ANSWERS

QUIZ BIRDS 1 & 2



Double-crested
(both)

Photo by Carole Rose

QUIZ BIRD 3

Double-crested



Photo by Ian Hearn

QUIZ BIRD 4

Neotropic



QUIZ BIRD 5

Neotropic



QUIZ BIRD 6



Double-crested

SUMMARY

NEOTROPIC VS DOUBLE-CRESTED



Reliability

a) Color & shape of gular

b) Color of lores

c) Length (& shape) of tail

d) Size & GISS

e) Covert & scapular feather shape

f) Angle of back (in-flight)

g) Size of bill ??

Diagnostic

Supporting