

## BARNDOOR SKATE (*Dipturus laevis*)

**COLOR:** Brown with dark spots on dorsal surface. Dusky ventral surface.

**BODY:** Wing tips make sharp corners.

**HEAD:** Pointed snout; not clear.

**SPINES:** No mid-dorsal spines on disk. Mid-dorsal row of spines down tail with a row of lateral spines on either side.



**PHOTO CREDIT:** NOAA / NMFS / NEFSC / ESB

# RAYS & SKATES

## LITTLE SKATE (*Leucoraja erinacea*)

**COLOR:** Olive-brown with uniform dark spots on dorsal surface. White ventral surface.

**BODY:** Concave anterior edge of disk.

**HEAD:** Blunt snout.

**SPINES:** Mid-dorsal spines present on disk in juveniles, but are lost with maturity. Many dorsal and lateral spines on tail.

**MATURITY:** Sexually mature over 14in. Mature male's claspers extend beyond rear of disk. Mature females have rough patch either side of genital opening. Max size approximately 24in. Immature male's claspers do not extend beyond disk; females lack rough patch near genital opening.



**MAY BE CONFUSED WITH:** Winter skate (pg. 11).

**PHOTO CREDIT:** NOAA / NMFS / NEFSC / Cooperative Research

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## WINTER SKATE (*Leucoraja ocellata*)

**COLOR:** Olive-brown with uniform dark spots on dorsal surface. White ventral surface.

**BODY:** Concave anterior edge of disk.

**HEAD:** Blunt snout.

**SPINES:** Mid-dorsal spines on disk present in juveniles, but are lost with maturity. Many dorsal and lateral spines on tail.

**MATURITY:** Sexually mature over 24in. Mature male's claspers extend beyond rear of disk. Mature females have rough patch either side of genital opening. Immature male's claspers do not extend beyond disk; females lack rough patch near genital opening.



**MAY BE CONFUSED WITH:** Little skate (pg. 10).

**PHOTO CREDIT:** NOAA / NMFS / NEFSC / Cooperative Research

# RAYS & SKATES

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## SMOOTH SKATE (*Malacoraja senta*)

**COLOR:** Gray-brown dorsal surface. White ventral surface.

**BODY:** Straight anterior edge of disk.

**SPINES:** Small row of mid-dorsal spines on disk; continuing down tail. Small spines posterior to eye. Rest of disk feels like sandpaper and large individuals may have small, sharp spines on edge of disk.



**MAY BE CONFUSED WITH:** Thorny skate (pg. 13).

**PHOTO CREDIT:** NOAA / NMFS / NEFSC / Cooperative Research

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## THORNY SKATE (*Amblyraja radiata*)

**COLOR:** Brown with some dark spots on dorsal surface. White ventral surface.

**BODY:** Shorter tail than other skates of comparable size.

**SPINES:** Large row of mid-dorsal spines on disk; continuing down tail. Scattered dorsal spines on disk.



**MAY BE CONFUSED WITH:** Rosette skate, (pg. 15), smooth skate (pg. 12).

**PHOTO CREDIT:** NOAA / NMFS / NEFSC / Cooperative Research

# RAYS & SKATES

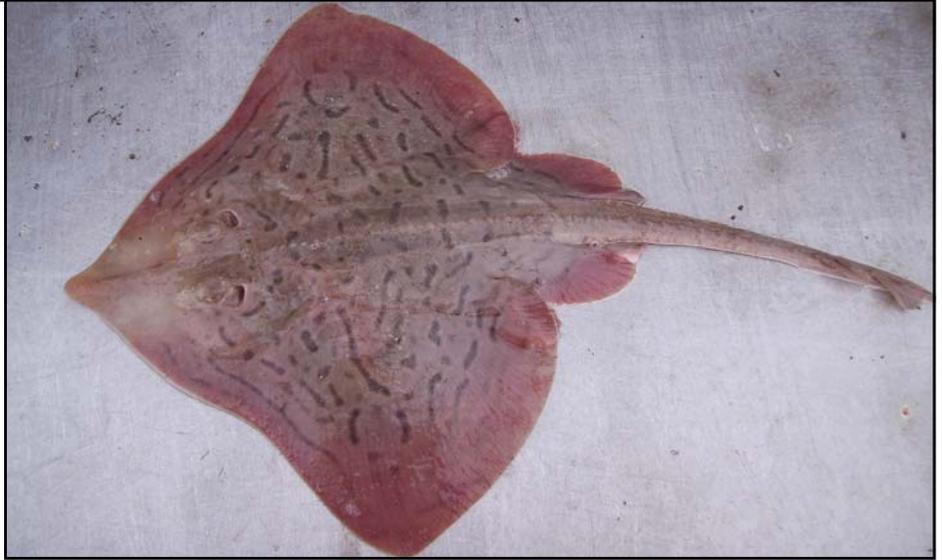
# RAYS & SKATES

## CLEARNOSE SKATE (*Raja eglanteria*)

**COLOR:** Olive-brown with dark bars dorsal surface. White ventral surface.

**BODY:** Pointed snout with slightly concave anterior edge of disk.

**SPINES:** Single row of mid-dorsal spines. Large mid-dorsal and lateral spines on tail.



**PHOTO CREDIT:** NOAA / NMFS / NEFSC / Cooperative Research

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## ROSETTE SKATE (*Leucoraja garmani*)

**COLOR:** Red-brown with distinct rosette patterns on dorsal surface. White ventral surface.

**BODY:** Relatively straight anterior edge of disk. Long tail.

**SPINES:** Several rows of mid-dorsal spines on disk. Dorsal and lateral spines on tail.



**MAY BE CONFUSED WITH:** Thorny skate (pg. 13)

**PHOTO CREDIT:** NOAA / NMFS / NEFSC / Cooperative Research

# RAYS & SKATES

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### BULLNOSE RAY (*Myliobatis freminvillei*)

**COLOR:** Olive-brown dorsal surface.

**BODY:** Wings long and pointed with concave posterior edges.

**HEAD:** Broad, projecting snout.

**SPINES:** Spine near origin of tail. Few mid-dorsal spines on adults.



**MAY BE CONFUSED WITH:** Cownose ray (pg. 17).

**PHOTO CREDIT:** NOAA / NMFS / NEFSC / ESB

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### COWNOSE RAY (*Rhinoptera bonasus*)

**COLOR:** Olive-brown dorsal surface.

**BODY:** Wings long and pointed with concave posterior edges.

**HEAD:** Projecting, squared snout with indentation between eyes.

**SPINES:** Spine near origin of tail.



**MAY BE CONFUSED WITH:** Bullnose ray (pg. 16).

**PHOTO CREDIT:** NOAA / NMFS / NEFSC / ESB

## RAYS & SKATES

# RAYS & SKATES

## ATLANTIC TORPEDO RAY (*Torpedo nobiliana*)

**COLOR:** Purple-gray dorsal surface. White ventral surface.

**BODY:** Broad disk with flat anterior edge. Robust tail with two dorsal fins.

**SPINES:** No spines on disk or tail.



PHOTO CREDIT: NOAA / NMFS / NEFSC / ESB

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## BUTTERFLY RAY (*Gymnura* sp.)

**COLOR:** Gray-brown dorsal surface with pale spots or blotches.

**BODY:** Disk much wider than it is long. Concave anterior edge of disk. Small tail.

**SPINES:** Smooth butterfly ray does not have a spine on the tail. Spiny butterfly ray has a spine near origin of the tail.



PHOTO CREDIT: NOAA / NMFS / NEFSC / ESB

# RAYS & SKATES

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## ROUGHTAIL STINGRAY (*Dasyatis centroura*)

**COLOR:** Brown dorsal surface.

**BODY:** Rhombus shaped disk.  
One of the largest species of stingray.

**SPINES:** Irregularly arranged mid-dorsal spines. Scattered dorsal spines, with concentrations across shoulders. Rows of dorsal and lateral spines on tail.



**PHOTO CREDIT:** NOAA / NMFS / NEFSC / ESB