

# Species Fact Sheets

**Order:** Anseriformes  
**Scientific Name:** *Mergus squamatus*

**Family:** Anatidae  
**Common Name:** Scaly-sided (Chinese) Merganser

**AZA Management:**  Green  Yellow  Red  None



**NATURAL HISTORY:**

**Geographic Range:** Europe  Asia  North America  Neotropical   
 Africa  Australia  Other [Click here to enter text.](#)

**Habitat:** Forest  Desert  Grassland  Coastal   
 Riverine  Montane  Other [Click here to enter text.](#)

**Circadian Cycle:** Diurnal  Crepuscular  Nocturnal  Other [Click here to enter text.](#)

**Cold Tolerance:** To 70° F  To 60° F  To 50° F  To 40° F   
 To 30° F  To 20° F  Other   
 With access to open water, this species can withstand temperatures well below freezing.

**Heat Tolerance:** To 30° F  To 50° F  To 70° F  To 90° F   
 To 110° F  Other   
 Access to shade and cold water is beneficial when temperatures reach and exceed 100°F. This species does not appear to heat stress as easily as other Sea Duck species.

**Diet:** Frugivore  Carnivore  Piscivore  Insectivore   
 Nectivore  Omnivore  Folivore  Other (Add Below)

**Captive Dietary Needs:**

The main component of the Scaly-sided Merganser's captive diet is Mazuri Sea Duck pellets. Being obligate piscivores this diet is very important to meet their nutritional needs. The pelleted diet may be supplemented with chopped fish (capelin, smelt, etc.) for enrichment and demonstrations but is by

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no means necessary to keep and breed the birds successfully. Live fish are relished as well when available.

<b>Life Expectancy in the Wild:</b>	Males:	Likely 8 years maximum	Females:	Likely 8 years maximum
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<b>Life Expectancy in Captivity:</b>	Males:	10 years	Females:	10 years
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### BREEDING INFORMATION:

<b>Age at Sexual Maturity:</b>	Males:	2 years	Females:	2 years
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#### Courtship Displays:

Scaly-sided Mergansers in captivity begin courtship and copulation in the late summer and early fall. As soon as the adults are finished emerging into breeding plumage, drakes begin displaying and hens begin soliciting. Drakes display a head-throw that is similar to that of the Common Merganser (*Mergus merganser merganser*). During this display, the drake throws his head backwards and extends the neck fully with the bill pointed straight upwards. This position is held for no more than a second until the neck is recoiled as quickly as it was thrown upwards and the drake reassumes the starting posture.

During courtship, drakes will flash the sclera of their eyes, forcing a circle of white to appear around the dark irises.

Scaly-sided Mergansers also frequently display comfort and self-maintenance behaviors that have become ritualized into courtship displays. These behaviors include bathing, preening, rearing, wing-flapping, and drinking. Both males and females will frequently drink before copulation. Drakes also display a variation on the normal drinking behavior. A male bird will dip his bill into the water and then quickly shake his head side-to-side while pulling his bill out of the water. This usually scatters droplets of water into the air. This behavior has also been observed in the Common Merganser (*Mergus merganser merganser*) and the Hooded Merganser (*Lophodytes cucullatus*), and has been termed “water-twitching” or “jabbing”.

#### Nest Site Description:

Scaly-sided Mergansers are obligate cavity nesters, laying inside tree cavities along rivers in their breeding range. Preference is shown towards nest sites around forty feet (12-13m) above the ground and facing the water. In captivity, hens will readily use a typical wooden nest box for cavity-nesting ducks with an entrance hole of 5 or 6 inches. This species will also nest in porch boxes, which offer added security while laying and incubating eggs.

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**Clutch Size, Egg Description:** Clutch size in captive birds normally ranges from 8 to 12 eggs being laid at a rate of 1 egg/36-48 hours. Eggs are elliptical, unpatterned, and buff colored. Mean dimensions of eggs produced in captivity are 63.95mm x 43.63mm. These values are mostly consistent with that of wild birds. Mean fresh egg mass is 67.02g.

**Incubation Period:** 35 Days

**Fledgling Period:** About 65 Days

**Parental Care:** Scaly-sided Merganser hens are solely responsible for incubation and chick-rearing. The drake will defend the nest site during breeding and egg-laying, but will abandon soon after incubation commences.

**Chick Development:** Scaly-sided Mergansers have an average hatch weight of 36.27g and can weigh anywhere in between 32.20g and 41.65g at hatching.

The hatchling Scaly-sided Merganser resembles the downy young of the Common Merganser (*Mergus merganser*), and to a lesser extent that of the Red-breasted Merganser (*Mergus serrator*). The head is nearly spherical, with the upper half being a light chestnut color. This coloration extends from the nares all the way to the nape, where the color begins to fade and abruptly bleed into white on the cheeks and underchin. Right below the eye, a white stripe exists that starts at the bill and extends back to the end of the eyeball. The pupil is large and black, while the iris is grayish-blue. This merganser's bill is already serrated at hatching and is almost black in coloration. There exists a prominent off-white nail at the tip of the upper mandible, and the tip of the lower mandible bears this same coloration as well. The back, sides, and tail of the ducklings are a light grey down, with white spots present in pairs on the scapular region, lower half of the wings, sides just above the legs, and dorsal surface of the rump.

Tail feathers begin growing in at around twelve days of age. Scapular feathers begin growing in at around twenty-five days of age. At around thirty-two days of age, pin feathers on the wings begin to grow in.

## CAPTIVE HABITAT INFORMATION:

**Social Structure in the Wild:** Scaly-sided Mergansers form pairs and actively defend nesting sites during the breeding season. They form larger flocks of up to twenty birds in winter.

**Social Structure in Captivity:** This species can be bred in pairs, but may also be maintained in larger breeding groups. Scaly-sided Mergansers have formed breeding trios in captivity.

**Minimum Group Size:** One pair.

**Maximum Group Size:** Dependent on exhibit size, but large breeding groups can be maintained.

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**Compatible in  
Mixed Species  
Exhibits:**

Yes

**Comments:**

Scaly-sided Mergansers are easily maintained in mixed waterfowl collections.

**Optimal Habitat  
Size:**

A minimum pool depth of three feet is recommended for Scaly-sided Mergansers. Overall exhibit size should be a minimum of 400 sq. feet for successful breeding. Larger enclosures with pools that allow for active swimming and diving opportunities are best for overall management and propagation.

**Management  
Challenges:**

Scaly-sided Mergansers do best on cool, clear, running water and it is recommended that the minimum pool depth be three feet. Health issues, especially with the eyes, may develop if kept on shallow pools with little water turnover.

Due to their instinctual urge to pursue and grab shiny objects in the water, Scaly-sided Mergansers also have the propensity to ingest inedible objects. Special care must be taken to not leave hardware in their pens. Pens and pools must also be clear of coins as these will also be ingested, leading to obstruction, zinc toxicity, and death. Even if foreign objects are removed from the GI tract, these birds can stress easily when in atypical housing setups mixed with routine and frequent handling.

Merganser hens are typically poor mothers and although they may sit well on eggs they will not do well with ducklings on exhibit. Hand-rearing is very strongly recommended for success with this species.

Scaly-sided Mergansers are among the earliest of seasonal waterfowl nesters. Eggs have been produced as early as February in several North American collections. If unattended eggs are left outside with temperatures below 20°F, there is a good chance of them freezing.

**ADDITIONAL COMMENTS:**

Please contact Chuck Cerbini at [chuck.cerbini@toledozoo.org](mailto:chuck.cerbini@toledozoo.org) for more information on this species.

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## REFERENCES:

Photo Credit: Judith Wolfe

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Personal observation and data-collection.

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