

THE GREAT OUTDOORS



*Female northern harrier in flight shows how the species carries its wings above its body in a dihedral, creating a characteristic 'V'. Another identifying feature of the northern harrier is the white rump patch, where the tail and body meet.
Photo: A. Klock*

Northern Harrier: The “Marsh Hawk”

Sea level rise and the loss of high marsh have dramatically reduced harrier numbers along the Maurice River and coastal marshes of the Delaware Bayshore.

By Anthony “Tony” Klock, CU Maurice River

An observant visitor to the Cumberland County Coastal salt marshes in winter may be fortunate to spot one of our “hallmark raptor species”, the northern harrier, commonly referred to as the

“Marsh Hawk”. These relatively shy hawks are most often seen in the distance, seemingly floating just above the tops of the marsh grasses. Harriers are easily identified by their slender appearance and their long tails featuring a prominent white patch at the base. Their tendency to hold their wings up in a v-shape, referred to as a dihedral, is also descriptive in helping to identify this hawk from relatively far off.

Northern harriers are smaller than a red tail hawk but slightly larger than a crow. Their length is roughly 20 inches with a wingspan between 40 and 45 inches across. They can weigh between 10 and 25 ounces. As is the case for most raptors, the female appears considerably larger than her male counterpart.

Interestingly, harriers are sexually dimorphic, which means that males and females have significantly different physical, or morphological, appearances. Adult female harriers, as well as immature birds, are brown or rusty brown on top and have a buffy belly with prominent streaking.

Adult males are often called “gray ghosts” due to their striking slate-gray upper wings and back and their dazzling white bellies. Both sexes possess an owl-like facial disk which is surrounded by stiff feathers that direct sound to the hawk’s ears.



EYES AND EARS: Owl-like feathering around the northern harrier's eyes acts like a parabolic disc, directing sound to its ears. This aids in hearing small prey on the marsh plain or in fields. Photo: A. Klock.

Like owls, harriers use both their hearing and vision to locate their prey. Marsh hawks' main prey are small mammals such as meadow voles, rice rats or mice, but may also feed on songbirds like meadowlarks, cardinals, or sparrows. Harriers may be seen hunting from first light to well after sunset. Often on still evenings right after sunset you might observe short-eared owls harassing harriers out on the marsh. They are competing for the same prey, and their hunts will overlap during those waning moments of the day.

Harriers are ground nesting birds and have historically bred in the marshes of New Jersey, though the bulk of harriers migrate north and west to breed on the prairies and tundra of the northern United States and Canada. They rely on open

habitats like meadows, bogs, as well as forest edges and former agricultural fields.

One interesting aspect of the harriers' natural history is that during non-breeding season the males and females make use of differing landscapes, with the males generally leaving the salt marshes to the females and hunting more in inland meadows and pastures.



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Northern harriers are sexually dimorphic, meaning the females appear noticeably different than the male. The female is a rusty brown and the male is slate gray. You are more likely to see a female than a male because females outnumber their male counterparts. Outside of breeding season they also use different habitats. Photos: A. Klock.

During courtship in late winter through spring mated pairs will engage in an acrobatic display known as "sky dancing," where the birds link up high and then wheel and tumble through the air repeatedly, often calling their insistent yet harsh "kek, kek, kek..." vocalizations. Males and females engage in nest building by constructing a platform on the ground and adding material to raise it up to 8 inches above the surface. Harriers raise one brood a season, laying four or five eggs, which may take up to two months.

Sea level rise and the loss of high marsh have dramatically impacted harrier numbers along the Maurice River and coastal marshes of the Delaware Bayshore. In their more than three-decades-long survey of Maurice River raptors, sponsored by CU Maurice River, Clay Sutton and James Dowdell have recently recorded their lowest tallies ever of northern harriers as well as red tailed hawks. They write, *"We strongly believe that the cause for these distressing downward trends is the lack of marsh rodent prey availability. As we have explored previously, we hypothesize that the frequent and persistent tidal flooding from winter storms, as well as from monthly Full Moon and New Moon high tides, has no doubt severely impacted (nearly eliminated?) marsh rodents from much of the formerly productive Maurice River marshes."* (Sutton, Dowdell)

Anecdotally, long-time birders have also noted significant declines in the numbers of harriers in the decade since Hurricane Sandy with the massive loss of marsh rodents.

The changing hydrology of the estuarine system has resulted in a shift of marsh plants with the seeming decline of large stands of salt meadow cordgrass (*spartina patens*) to the more inundation-tolerant and taller *spartina alterniflora*.

Additionally, the almost total take-over of the lower Maurice River marshes by phragmites makes hunting virtually impossible for the harriers. The persistent flood tides make ground nesting unmanageable for the hawks as well as for other high marsh inhabitants like saltmarsh and swamp sparrows, as their nests would be regularly flooded out.

To observe these amazing hawks in our region, you can visit the Natural Lands Trust Glades Preserve in Downe Township (Turkey Point Road), Heislerville WMA, the Commercial Township Wetlands restoration site in Bivalve, or along any access point that provides you an unobstructed view of the tidal salt marsh.

About The Author:
Tony Klock

After 35 years Anthony Klock recently retired from the Voorhees, NJ school system. He was both a fourth grade and Gifted and Talented program teacher. He and his wife Marcia live in Port Norris, New Jersey.

Tony has been a participant in the World Series of Birding as a member of the "CU Fish Hawks". This is the most famous birding competition with international participation.

He enjoys leading walks for CU Maurice River and has as his personal mission to bring both young and old to a deeper appreciation of the natural wonders of the "Down Jersey" region. His 4th Saturday walks on the Maurice River Bicycling and Walking trail are popular. An avid gardener, Tony has opened his and Marcia's property to the CU garden tours led by Pat Sutton.

Tony serves on the Board of both CU Maurice River and the Bayshore Center in Bivalve. Tony is also active with the Bayshore Center at Bivalve (look for him shucking oysters at the raw bar on the docks) and with the Port Norris Fire Company. You can follow him on Instagram at "tkportnorris".