

Northeast Avalon Times May 2015

Avian sex differences are in the eye of the beholder

Birds I View

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A pair of Mediterranean gulls on the beach in Rimini Italy. The likely female in the foreground has a band on her right leg. [photo – Bill Montevecchi]

When you look at a herring gull, it is extremely difficult and often simply not possible to know if it is a male or female. Yet, a strikingly patterned male pintail duck is easily distinguished from a more conservatively plumaged female.

These patterns of sexual similarity and dimorphism are fairly generalizable among bird species groups. For instance, among the seabird species that breed in Newfoundland and Labrador, the females and males look similar. Whereas among the freshwater ducks it is simple to distinguish the sexes.

Seabird watchers with a discerning eye can at times distinguish a male from a female, particularly when paired birds are standing together. Males are often more thickly proportioned around the head, bill and body, still there is considerable overlap between the sexes so such determinations are not always reliable.

Sex differences and parental behavior

Differences and similarities between the sexes are intertwined with other aspects of bird behavior and ecology. When male and female birds are similar in appearance, they tend to share parental duties, and when they look different they don't.

Among seabirds, both sexes care for and incubate the eggs and guard and provision their chicks. Males and females however often partition parental activities differently. Male gannets deliver more nest material than females. Among murrelets it is the fathers who take the flightless fledglings to sea and attend them for about a month until they can fly.

For sexually dimorphic species, such as freshwater ducks and red-winged blackbirds, parental egg care falls almost exclusively to females. The males of these species are often brightly colored and patterned, whereas the female's plumage is drabber and more cryptic.

The plumage patterns fit with different parental roles. While sitting on nests, females are highly vulnerable to predators. Earthy female plumage provides an effective camouflage that has been favored during evolution.

Showy males are much more likely to be detected by a predatory hawk or fox. So why then are the paternally free-loading males so conspicuous? The females play a hand in the males' striking plumage which like Armani suits don't come cheaply.

Choosy females

Females choose to mate with more striking and exuberant males. The theory is that if the males are not going to do much parenting anyway she may as well exploit male genes that will provide her sons with fancy plumage and vigor so they too can attract mates and pass on shared genes.

In more extreme situations of female choice as among red-winged blackbirds, the males that can defend large estates or territories from other males often attract multiple female mates. The efforts and risks of territorial defense for the minimalist parental males are costly and can shorten their reproductive lives. The females who choose to mate with a well-propertied male enjoy local privileges and hedge their bets that their sons too will be feudal barons in the next generation.

There are also some species in which females are larger or more patterned than males. And for these species some females attract multiple male mates.

The spotted sandpiper that is common around our ponds and beaches is a local example of a species in which females are often larger and more patterned than males. Some heavily spotted females attract multiple mates. With her initial mate, she lays a clutch of four large eggs then leave the male to incubate the lot. She attracts second mate with whom she produces a second clutch and shares incubation duties.

Individual and pair differences

Within the diversity of mating arrangements, individual and pair variability is ubiquitous. Some individuals work harder and put in more effort than others. There is considerable tolerance of individuality within pairs and among monogamously bonded mates there is almost as much diversity including infidelity as there is among human couples.

Like human couples avian mates also divorce when tolerances are overwhelmed and reproductive efforts fail. Learning about the intimate lives of monomorphic seabirds involves long-term studies in which the males and females are marked for easy identification. The story lines and intrigue can be captivating.

Birding Italy

During the past few weeks, I have been vacationing with my family in Italy, and observing birds as well visiting cultural wonders and drinking *molto bene vino*. My most impressionable perspective is what nature will be like after everything has been altered by human hands. The good news is that the world can still be wonderful and that resilient life will spring forth whenever and wherever it is not beaten into submission. And even in these circumstances life will eventually surmount adversity, as nature seems intolerant of a vacuum.

Italians are extraordinarily fastidious about their gardens and farmlands. There is however a refreshing tendency in many places to let roadside, park and peripheral vegetation grow wild with striking results, rather than cutting it down and hydro-seeding as we do here.

Vineyards and tree plantations provide habitat for a diversity of birds, though many native species are long since gone along with native environments. I never seen more birds of prey than in the open habitat created by the vineyards and farms.

And while men and women still catch fish from wharfs where they throw in their cigarette butts and litter. The beaches were the most disconcerting aspects of the natural environment. Bulldozers were always active in the early morning to ensure that the sands were perfectly level for sun worshippers. Front-end loaders and dump trucks moved along the tidal edge picking up small piles of bottles, plastic and extraneous seaweed, all the time compacting the sands, destroying loose moist shellfish and crustacean habitat.

A few old men collected cockles as they likely had done as boys, though the beaches on the Adriatic stood as testament that a meticulously cleaned environment is not necessarily a productive or healthy one. The few gulls and shorebirds that frequented the relatively lifeless beaches were extraordinarily wary and flew off at a distant approach, possibly due to harassment and former hunting pressure.

Italian art, architecture, cuisine and culture attract tourists from the world over. Yet, Venice is sinking, and what Italy doesn't have and can never regain despite all its masters is any natural environment untouched by human industry. We still have that option. Clearly human creations can be overwhelming and invaluable though some things that we have little hand in are truly priceless and irreplaceable.

Birds in the area

In early April more than 50 gannets were engaged in early morning plunge-diving off Manuals-Long Pond, likely targeting schools of spring herring [Linda Gaborko].

An adult bald eagle that landed on the ice on Burton's Pond in mid-April had the ducks and gulls in a state of panic [Toby Rowe].

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