



*International Migratory Bird Day (IMBD), held annually on the second Saturday in May, is an invitation to celebrate and support migratory bird conservation.*

# Birds of a Feather Nesting Together

## *IMBD Celebrates Colonial Birds*

### **What Is Coloniality?**

Colonial birds nest in the same place at the same time, and coloniality has been a successful evolutionary strategy for many bird species. One estimate is that 1 in 8 bird species worldwide nest colonially; other estimates are higher.

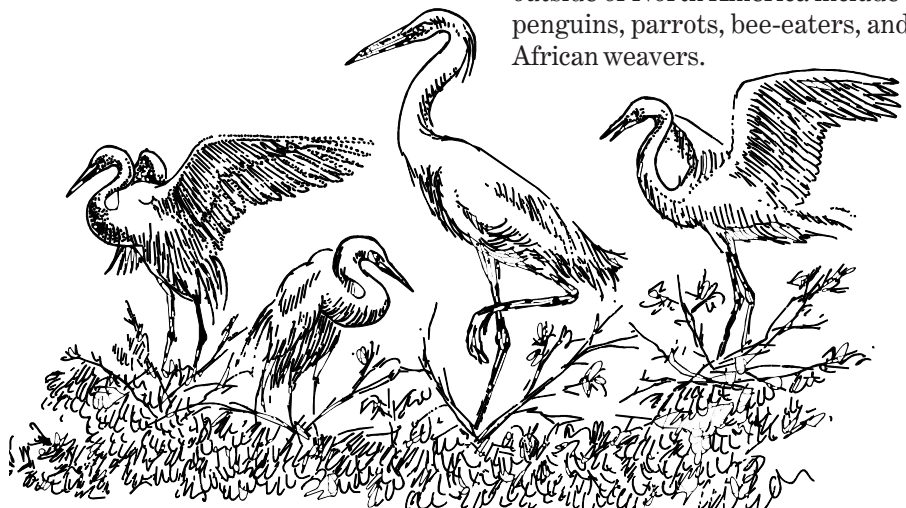
Colony sites take many forms: mud nests plastered on vertical surfaces; burrows riddling a seaside cliff, a stretch of depressions in a sandy beach, or bulky stick nests forming a woodland rookery. Colonies also vary in size; some have thousands, sometimes millions, of birds packed together within inches of one another, while others are made up of nests scattered across a broad area or include just a few pairs of birds. However, in all colonies, the members have a social bond, interacting and affecting each other's behavior. In fact, though some species that nest colonially may also be found nesting alone, many require the presence of their own kind to nest and reproduce.

### **Which Species Are Colonial?**

The following is a list of North American bird families in which most species are colonial nesters. Note that most are marine or coastal waterbirds or birds that feed on airborne insects.

- Albatrosses
- Shearwaters and Petrels
- Storm-Petrels
- Tropicbirds
- Boobies and Gannets
- Pelicans
- Cormorants
- Aningas
- Frigatebirds
- Hérons and Egrets
- Ibises and Spoonbills
- Storks
- Flamingos
- Gulls and Terns
- Auks, Murres, Puffins
- Swifts
- Swallows and Martins

Colonial-nesting species are also found in a number of other North American bird families. Some grebes, waterfowl, birds of prey, and blackbirds will nest colonially. Colonial-nesting birds found outside of North America include penguins, parrots, bee-eaters, and African weavers.



*Snowy Egrets credit: Robert Savannah*

**IMBD Information**  
web - <http://birds.fws.gov/imbd>  
phone - 703/358-2318

**IMBD Materials**  
web - <http://www.BirdDay.org>  
phone - 1-866/334-3330

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### **Costs and Benefits of Coloniality**

Exactly why coloniality evolved or persists has not been resolved, and it may be that the behavior arose for different reasons in different groups of birds. Better known are the costs and benefits experienced by colonial birds, although additional research is also needed to fully understand these. Also, the balance of costs and benefits varies over time as environmental conditions change.

#### Benefits

Birds in colonies may enjoy greater safety from predators, because when a group of birds is vigilant, predators are more likely to be seen or seen sooner.

Also, some predators are deterred by the ability of colonial birds to simultaneously attack intruders.

Individuals may also enjoy simple "safety in numbers," meaning that a predator can rarely kill all the individuals in a colony.

Colonial birds may also benefit from information exchange. Individuals may learn about spotty and scattered food supplies from observing their neighbors, either coming or going from the colony, or while out foraging.

Also, the presence of a colony can signal a suitable nesting site for young birds returning to breed for the first time.

#### Costs

Colonies, which are louder and more visible than solitary nests, may actually attract predators and increase predation.

The high densities of birds in colonies may foster higher rates of disease or abundances of parasites.

Colony members may experience increased competition for nest materials and may deplete food sources near the colony, requiring more effort to find food.

Birds in colonies can be very aggressive to one another, with neighboring adults harming eggs or chicks.

"Misdirected" parental care can occur; that is, a bird may inadvertently raise its neighbors young. This happens if chicks wander or if birds lay their eggs in others nests. [Of course, this could be viewed as a cost or a benefit depending on whose side you're on!]



### **Coloniality and Conservation**

Though usually considered in terms of the individual, the costs and benefits of coloniality can also be viewed at a species level. Coloniality may increase population risks by concentrating birds in a limited area. In other words, single events or incidents can affect the nesting success of a large number of birds. Also, because many colonial species require that individuals be present in the same place at the same time before breeding can take place, the restoration or formation of new colonies can be difficult.

There have always been natural threats to colonies such as storms and predators, but human activities have brought many new threats to colonies. The introduction of exotic predators and vegetation to breeding areas, disturbance of colonies by human activity, and outright loss of breeding habitat threaten many species of colonial birds.

Fortunately, colonial birds and their colonies are often highly visible and impressive, and thus can garner positive public attention and support in terms of protection and study.



*Swallow*  
credit: Alan Brooks