

The paradox of gannet nesting behavior

Birds I View

Bill Montevecchi



Nesting Gannets

“Can’t live with them, can’t live without them” is an adage that captures the essence of the nesting behavior of gannets. Early in my gannet-watching career, I stared in horror for hours as an adult gannet atop the stack at Cape St. Mary’s mercilessly attacked and ultimately killed a fully grown chick making its way to the cliff edge to jump to the luring and unknown ocean below.

I couldn’t fathom a rationale for such behavior. What benefit, what gain could select for such an attack? Might this simply be spite or some other miscue with no benefit at all?

It also became stunningly clear to me that the reason that the gannets nested together was not because of any sense of communal camaraderie but rather they lived this way because they were compelled to. But why?

Unconditional aggression

Gannets nest in very dense colonies with each mated pair nesting about a neck-length apart. Yet, they would no sooner look at a neighbor as peck its eye out if it

leaned over a few centimeters or attempted to snatch a fragment of seaweed from their nest.

Gannets never leave their nest unattended. When one mate ventures to sea for food, the other guards the nest, egg or chick with an intense vigilance and a hair trigger readiness for all out attack.

If a nest is unattended, neighbors, non-breeders and immature birds quickly rush the site, rip apart the nest stealing material, smashing and displacing the egg and chick. In such circumstances, a strong aggressive offense is the best defense. So, what is the compulsion for the birds to nest in such close proximity?

Different living arrangements

Gannets nest on cliffs and islands that are free of mammalian predators such as foxes. When nesting on a narrow cliff ledge which is what they do most often, pairs would only have to deal with imposing neighbors on two sides rather than being surrounded when nesting on flat ground.

When gannets established the colony at Cape St. Mary's in the late 1800s, they initially nested on the cliffs of Bird Rock. Murres nested on the top plateau, but the gannets soon displaced them.

Could it be that nesting on flat terrain is maladaptive? On Baccalieu Island and in the Gulf of St. Lawrence on Bonaventure Island, the gannets' largest colony, small portions of the nesting population overflow packed cliffs to the level ground above. Yet, at very remote sites like Funk Island where terrestrial predators essentially do not venture, colony distributions shift from vertical to horizontal arrangements on flat ground.

It's not all blood and gore

Within the realm of spite, blood and unending conflict, gannets are extraordinarily gentle and delicate with their mates and offspring. The exuberant and celebratory billing and mutual preening of mates on reunions at nests are magnificent expressions of bonding and commitment. The fastidiousness preening and cleaning of a chick's downy plumage to maintain a brilliant white fluffy coat amid the muck and squalor is a parental commitment of the highest caliber. However, if a chick is displaced but a few centimeters from the nest, the parent seems not recognize it, ignores it and may even attack it!

Coloniality and fishing

There are thousands of cliffs and rocky islets around the Newfoundland coast where gannets could nest. Yet there are only three colonies.

These circumstances substantiate the gannets' powerful attraction to nesting with one another and also an aversion or social inertia that precludes moving elsewhere.

So if they are clobbering each other in dense breeding colonies, might their behavior at sea help to explain their nesting behavior? All colonies are located near productive fishing areas.

Gannets fly from and return to the colony in flocks during fishing trips. The birds benefit from flight efficiency by travelling in lines and skeins in the air foils of those ahead of them. Frontal birds often change positions, though young gannets in dark plumage are always back in the pack undoubtedly acquiring knowledge of their environment.

Importantly and possibly essentially, colonial nesting provides inhabitants with a great deal of public information about where others are fishing. The larger the colony - the more information that can be gleaned by simply watching others.

What's it all about?

Might all the bloody conflict in the colony be a consequence of life at sea? It seems that the benefits of social foraging provide good reasons for breeding in colonies.

Could it also be that for some complex behaviors to function, others sometimes have to be compromised? If so, it then seems that we can often gain insight into an animal's behavior by paying attention to what an animal cannot do besides just focusing on its feats of biological genius.

So we know that gannets benefit from nesting in colonies. But why so close together?

Roof-nesting gulls

Herring gulls are now taking up summer residence and nesting on the roof tops of many buildings in area. Large roofs that are flat, hot and often gravelly like the beaches where gulls and terns often nest provide an attractive habitat. In Europe, gulls and terns commonly nest on building roofs in Europe. It is straight forward to accommodate them in most instances.

Herring gulls are successfully nesting on buildings in the Pippy Place area (Barb Hennesey) and on many buildings at Memorial University. Plans need to be developed for these changes rather than simply reacting to roof-nesting gulls as simply another "pest problem".

Birds in the area

To emphasize that seabird behavior and ecology is not carved in stone, Holly Hogan reports about 100 gannets roosting on Green Island in Witless Bay. They are likely non-breeders associated with the colony at Baccalieu. They are definitely a group to keep an eye on.

At the end of July, Richard Northcott sighted two very different and notable birds at Ramea - a great blue heron from the south and a dovekie from the north.

A nesty merlin that chatters nervously when passers-by visit at the end of Round Pond Road in Portugal Cove attracted Milly Trask's attention. Other birds of prey in the area include osprey fishing at Murray's Pond and Windsor Lake (Kathryn Welbourn), a sharp-shinned hawk calling and aggressively diving at a bothered raven, and a pair of young Great Horned Owls recently out of the nest near Gosse's Pond in Torbay (Lee Harvey).

A very mottled and bizarre plumaged white-splotched robin has been bobbing about the lawns and gardens in Portugal Cove (Janet Montevecchi). In mid-June, Carolyn Mayo was enchanted by a stunning pair of American goldfinches feeding on the seeds of wildflowers in her garden by Neary's Pond. Harry and Shonda Brown have purple finches visiting their summer feeder in Little Harbour East. Harry describes them as very gentle unaggressive birds, and in Carmanville Sam Windsor is feeding both gold and purple finches at his feeder.

Keep looking up – it's just the way it is.

Contacts = mont@mun.ca, 895-2901 (h), 864-7673 (w).