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**Young birds are on the wing**

**Birds I View**

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Blue-eyed fledgling crow fresh out of the nest – see down feathers by wing. (photo: Eugene Ryan)

Juvenile birds from the summer's sucessful nesting efforts are taking flight. Their plumages may have a hint of nestling down (see image above) and are often duller, streakier, more spotted than those of adults. Many of them follow their parents closely, beg and receive parental attention and food. Some of the more high-energy pairs have moved onto to laying second clutches of eggs and rearing new broods.

Successful reproduction is an intricate integration of parental behavior with environmental conditions. To acquire the energy needed for egg production, females require

enhanced nutrition prior to laying. To do this forest birds usually feed heavily on seeds and seabirds on fish. Males may also feed their mates.

At hatching, the food requirements of the growing nestlings are intense. At this time, parents exhibit dietary shifts that match seasonally changing food sources. Many land birds switch to feeding their nestlings nutrient-rich insects, and seabirds provision offspring with energy-dense fish, in our waters spawning capelin. Birds of prey may capitalize on the abundance of young birds and rodents. Amazing ecological patterns and evolutionary processes are unfolding.

Changing environmental and climate conditions affect the availability of food and ultimately the survival of birds. The unnecessary and excessive and use of pesticides has taken massive tolls on non-target insects. This has resulted in less food for tree swallows and other birds reliant on insects. Radical climatic shifts and extreme weather events are impacting the abundance and diversity of insects and fishes. And critically, the timing of life cycle events is changing.

Timing is everything. The timing of seasonal events provides the link between parental birds and what and when they can feed themselves and their offspring. The hatching of land birds coincides with flushes of insect emergence that create an abundance of nutrient-rich nestling food. Local seabirds rely on the timing of the inshore migration and spawning of capelin.

Climate change can advance or delay the blossoming of plants, the emergence of insects and the spawning and movements of fishes. The delayed and reduced inshore spawning migration of capelin is creating major challenges for seabird trying to raise chicks. Many seabird parents are traveling further to secure food, and the capelin that they finding are often smaller.

Parental skills also vary among pairs and their parental attempts are not always successful. For example, the breeding failure of the ospreys nesting in St. John's on Snow's Lane in full view of the Newfoundland Power webcam has raised concerns and questions for many people.

The female osprey laid three eggs. The three-egg clutch is itself a hedge about food security. As the chicks hatch about a day apart, the first hatchling gets the first parental feedings and is larger and more robust when the second chick hatches. When the third chick arrives he/she has two much larger sibling with whom to contend for food.

The largest chicks is fed first and secures the most food. When there is not enough to go around, the smaller chicks bear the burden. Exceptional parents in exceptionally good food years can rear all three chicks. When feeding conditions are poor, the chicks fight for food, and success favors the oldest and largest and weighs against the smallest last-hatched chick who often perishes.

The net long-term consequence of this arrangement is that in a poor food year, the parents raise fewer more robust chicks rather than producing a larger brood of less fit chicks that shared a limited parental provisioning. Unchecked sibling rivalry often determines the number of nestling who fledge from three or four chick broods of osprey. Many gulls, terns and other birds that produce multi-egg clutches and provision their nestling have evolved similar sibling competition adaptations.

Most seabirds are still feeding their chicks who begin fledging by the end of July. Young dark-plumaged gulls and strikingly patterned kittiwakes will be the first. They will be followed by the murres who take their small chicks to sea following the moving schools of capelin. In August, the tiny black pufflings will make solo ventures from their nest burrows at night. Many will be disoriented by the lights of nearby communities and land on coastal roadways.

The longest nesters are the gannets and storm-petrels whose young will begin departing nests in September and continue through the month of October. Seabirds nesting at colonies in the warmer water on the south coast will be on the move well before those the northeast coast immersed in the frigid Labrador Current.

Road kills of inexperienced flitting fledglings flitting are expected. They are also at high risk of predation by cats, so this is prime time to keep domestic cats indoors. Even though a young bird makes it to wing, its probability of survival is lowest at this time and during its first year of life. The challenges may hide but they never subside.

**Birds in the area**

On July 3 – 4, Bruce and Donna Mactavish noted a kill of more than 100 Leach's Storm-Petrels near the Cape Race lighthouse. These birds were apparently driven to the headland by strong northeasterly winds and were then attracted to the beam of the lighthouse. Owing to the time of year, these birds were likely breeders. If so, every dead parent will also result in a dead chick, as seabirds like many other birds require both parents to successfully rear offspring.

Kathryn Hargan and her family were fortunate to see a family of short-eared owls with a newly fledged owlet running among the hummocks at Cape Freels in late June.

Keep looking.

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