

Part 1. Their Natural World
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to Help!

Do's & Dont's: Encounters with Familiar Wild Bird Breeding Situations

some observations, opinions and suggestions, mostly about songbirds

PART ONE: Their Natural World

Birds live in another world, a world completely different from ours. It is *their* world, and we live in it. They were here long before we evolved, and we could not survive without them. They live naturally in weather that we often dislike and avoid, in a world of thousands of living creatures in constant interaction—a networking—we cannot understand. Like plants, they depend on light to stimulate their growth and sex hormones. They are designed for their world in every way.

Every bird-sound you hear is a communication.

There are whole families out there, parents, their young, often some unmated aunts, uncles and cousins, talking to each other. Sounds say *I am here, I need to be fed, Watch out! This is my territory, You're my love, and Hi, mate, it's me!* And lots more. Bonding (imprinting) begins while the chick is still inside the egg; it vocalizes back and forth with the parent above it.

Each mated pair has to earn a property for themselves (perhaps shared with an unmated relative) the periphery of which they dispute or settle with their neighbours by song. The young of each species have different volumes of hunger-calling; for example, perhaps because they are out of sight, I've noticed that woodpecker young are loud, oriole young have very noisy, irritating calls, while phoebe nestlings, in view, barely whisper.

adaptation

Birds have been following successful breeding routines for millenia, but in the last century we have altered much of their world: not only have we removed much of their nesting habitat—the forests, the bush, the fields, the shores, the wetlands—but we have introduced alien, dangerous obstacles they cannot comprehend—roads, cars, power wires, windows, towers, guns, fishing tackle and cats. Being adaptable is the most important criteria for success of a species, and the hardiest and most adaptable species have successfully integrated themselves. English Sparrows nest in eaves and cavities above traffic lights instead of hollow branches; European Starlings nest in attics, drain-pipes, between walls and in country mailboxes; House Finches love hanging flower-pots; pigeons make do with windowsills and decorative cavities unintentionally provided by architects, instead of on rock cliffs. Some North Americans malign and even despise them for it, partly because many birds – imported by our own species, remember—are now regarded as “foreigners.” It has shocked me to find that some of those who rehabilitate injured birds refuse to give care to “foreign” species. What sort of compassion is this? Doesn't this arrogance, the right to decide a superior race, hint of Nazism? In Canadian hospitals I worked in as an RN, Asians, Africans, Indians were/are given medical care the same way as everyone else (except the rich and famous of course, with private nurses.) We in North America who do not belong to a native tribe, are also “imported foreigners” (remember Columbus?)

Except historically, why should it matter where the birds originated anyway? Like “foreign” cats, apples, pears, and many trees and they are now part of the continent we live on and they have adapted, which is a major sign of genetic strength. In Nature, those that do not adapt, die out.



Fledgling Northern Oriole calling. Their cry is shrill and persistent—their parents can always find them!

ests

Because the most familiar nests are visible cup-shapes like a robin's in a bush or tree it has become a stereotyped image, but birds raise their families in many other ways. **Cavity nesters** want a deep dark hole, such as some owls, woodpeckers, pigeons, House Sparrows, starlings, wrens, martins, some swallows, chickadees, Chimney Swifts, and kingfishers. Wood Ducks and mergansers also nest in holes in trees. **Ground nesters** nest right on the earth in fields, marshes, shores and woods. Some, like bobolinks, meadowlarks and some sparrows build a concealed nest, while others such as Whip-poor-will, killdeer, gulls, terns lay their eggs in a 'scrape' without nesting material. Because of these it is inadvisable to wander in marshes in spring, and illegal to allow dogs to roam through them. Roaming cats, however, continue to destroy nests and their contents. **Don't let pets wander**, especially in spring.

Nests may occasionally be used second time, or several nests may be constructed. In fact, some males such as wrens and phoebes build dummy nests. Sometimes second-use nests become populated with bloodsucking mites, which may be one of the reasons that birds prefer to build anew each time.



New-hatched Ring-billed Gull chicks in scrape nest. They are semi-precocial as they have to be fed

The incubation period may begin when the first egg is laid, or it may not begin until all the eggs are laid. *This means that eggs apparently abandoned probably have simply not begun being incubated.* Lots have been recorded about eggs—try your library or bookstore for more detail.

nestlings and chicks

Nestlings generally refer to *altricial* species in nests where the hatchlings have a relatively short stay in the egg and emerge featherless or with a bit of down, blind and helpless, such as the robin, dove, crow, sparrow and other familiar backyard species. They require the whole shebang—warmth, feeding every few minutes, and dropping removal. These are contained in neat pale *fecal sacs* made of thin white tissue, and are beaked up by the parent and either swallowed or taken away for disposal (sometimes splat! Into the local bird-bath.)

The other category of hatchlings is called *precocial*, where the young have stayed much longer in the egg and emerge self-



altricial nestling Common Grackles. All the Blackbird family start with bare patches around the eyes, including orioles (see oriole photo)



altricial nestling Pileated Woodpeckers. Note no down—not appropriate in tree cavity



one of their donations: a neat fecal sac, 55mm (2.5") long



altricial hatchling, probably a House Sparrow



altricial nestling: new-hatched pigeon which I briefly exposed for photo. White patch (upper) is the cere on dark parent's beak. White tip on hatchling's beak is its egg-tooth

feeding, with a full downy coat, bright eyes, and legs that run or swim at once, such as killdeer,

grouse, ducks, and chickens. They require parental guidance and protection and are usually camouflaged. These categories are not wholly exclusive, though; there are variations in each.

fledglings

This is a general term for altricals once they have outgrown the crowded nest and have made their first clumsy attempt to fly. For a very short period they are innocently without fear or knowledge, and become a concern for many watchers. More about them in Part Two!



killdeer chick banded for quick return



altricial fledgling Chipping Sparrow

PART TWO: food and feeding: a distorted perception of diet

While we are raised as babies on milk, most songbird babies are raised on solid food—whole insects, which contain the necessary fluids. Parent birds cannot carry water in their beaks, so the young never drink. The nestlings and fledglings need high protein insectivorous feeding presented in exactly the correct manner and amount, at least every 3-5 minutes from dawn to dusk. Finders are often over-influenced by mammalian needs—milk, fluids and feeding 3-4 times a day. Birds are totally different. Think what the parents do. They don't bring them water! Fluids should never be squirted down their throats; insects give them all the fluid they need.

Songbird parents constantly search for choice arthropods* often coming and going in turns. The swift, unobtrusive arrival at the nest, the passing of the insect from beak to beak and the silent departure may take less than 5 seconds. Feedings may be as rapid as every 2 minutes, especially in the very early morning, though the feeding rate drops by noon. A pair of phoebes was recorded making 845 trips to the nest in a day; small birds have a high metabolism and their daily intake averages 40% of their body weight. For us to reach that level, we would have to eat about 85 lbs between dawn and dusk.

If the young were apparently not fed for a few hours, either the watcher has missed the quick, unobtrusive food-pass of the parent, or it was a natural slowdown time of day or of growth, or the parents were still hunting, or the parents were also feeding older young that have already left the nest. Or the traffic was awful. Trust them; they have their reasons for everything they do.

It is unfortunate that our perception of wild birds is so greatly distorted by the only birds most people—especially children—see close up: pet and domestic birds and those at feeders. In all these groups the birds are seen eating *seed* and drinking *water* because commercial seed is processed dry. But as I said, the main diet of nearly all songbirds is *insects*, which contain both high quantities of protein as well as the fluid the birds need. And *99% of songbirds raise their babies on insects, spiders and other arthropods.*

the robin and the worm

Note I say “insects.” Many of us are over-influenced by seeing a robin pull a worm out of the lawn and assume that that is only what robins eat, and therefore, illogically, that that is what most familiar songbirds eat. When in early grade school one of my sons (now in his 40s) came home with some drawings he had been praised for: one was, “This is a Bluejay. It eats seed.” Another was, “This is a Robin. It Eats Worms.” Actually, robins can only hear and pluck out earthworms that are close to the surface of short grass; earthworms are not available to robins if the grass is long, or if the soil is very hot or dry or generally unsuitable, because the earthworms, sensibly, go down to cooler, more moist depths.

Therefore we are looking at the diet-thing back to front: robins in this century take advantage of earthworms in lawns—a cultivated monoculture of cropped grasses—that we have created to please



Bluejay fledgling gobbling a beetle larva. Though it is called a “mealworm,” it is an insect

ourselves, so robins have adapted to this new food supply just where it is easily viewed by us. Adaptation again. Short-billed birds like robins (vs. long-billed birds like snipe) cannot easily retrieve earthworms in long grass, bush, woods or marshes, all of which we are busily removing wherever we build houses, driveways, roads, shopping centres, parking lots, golf courses, airfields, agricultural fields. Also, robins eat at least 40-60% vegetarian diet—berries, grapes, etc. Gardeners have learned that!

Starlings, too, pluck occasional earthworms from lawns, but both robins and starlings eat far more real insects, spiders, and arthropods generally, as they tack back and forth across the short grass. Try sitting on your lawn and watching the small life between the blades: adults, larvae and even eggs of millipedes, sowbugs, crickets, grasshoppers, leaf-hoppers, earwigs, small flies, ants and many more go about their business at grass-roots level.

about earthworm parasites

We still see a knee-jerk response to finding a baby bird that is a) to cage or box it on damp green grass, and b) to offer it chopped earthworms. As I said, not many species hunt these annelids. Earthworms host small parasites, *syngamus trachaea*, which are transferred to some that eat it, fastening themselves inside the trachea (windpipe) where they suck blood, and their bodies sometimes narrow the airway. Robins are routine, well-adapted habitual hosts in balance with this stage of this parasite, but feeding earthworms to uninfected species could be damaging. If you must feed it a mouthful before putting it back, use canned dog-food.

Note to rehabilitators. Some of you routinely give a parasiticide by pill or injection to robins to cleanse them of their *syngamus* (and other internal parasites.) For those that are coughing or gaping, by all means tug out any visibly offending *syngamus* from the glottis with small forceps, but anthelmintics are toxic and therefore risky, and what's the point? As soon as they are back in their natural habitat, they will be eating earthworms again!

“feeder” birds

Before I run out of steam on this much-repeated topic, another comment. Most of us are familiar with “feeder” birds that enjoy an occasional treat of sunflower seed, peanuts, or suet in the winter. But one must remember that for most birds this is only a *treat*, because with the exception of the seed-eating dove and finch families, the main diet of chickadees, nuthatches, woodpeckers, bluejays, Tree Sparrows etc., is *arthropods*, particularly insects, insect eggs, insect larvae and pupae on plants and trees. Suet, peanuts, Niger, and sunflower seed and bread are alien canapés. Fine eating, but not the main meal. Feeders are good things because they are really for us (no one puts feeders out of sight) and so people get familiar with some species, enjoy them, and defend bird causes. If everyone suddenly stopped providing feeders, bird corpses would not litter the landscape; the birds would simply hunt out more of their natural foods.

Part Three: The Human Wants to Help!

situations that look in need of human help...but do they?

about eggs

Found an egg on the ground? Leave it alone. It may be addled, it may be sterile, it may be deformed, or it may even be laid there intentionally, as many birds nest on the ground. You really don't know whose egg it is, how old it is, whether it is healthy, or even why the egg is there. Popular thinking is, “It accidentally fell from the nest,” and therefore it should be replaced; but many remarkable bird studies worldwide have shown that quite often, the egg-layer dropped it there intentionally.

We get many calls about solo eggs. Half the time the finders don't even know what species it belongs to, but they think they should do something about it anyway. “It's a robin's egg,” I'm told. “Why do you think that?” I ask. “Because it's blue,” they say, but about eleven species in Ontario alone lay blue eggs. Just leave it where you found it; don't try to replace it—the female will re-lay another instead.

Don't even *think* of trying to hatch it with a lamp or an incubator; not only is it illegal, but it's a stupid, really short-sighted action: only the parent of that species can provide the right humidity, tem-

UNATTENDED EGGS should be left undisturbed. Finding a cold egg or two may mean it belongs to a species that only starts to incubate when the total clutch has been laid. If eggs are truly abandoned, the female is starting again elsewhere. People should never try to incubate them, as each species has its precise humidity, body temperature and turning-time which humans can hardly hope to duplicate. Finally, captive-reared hatchlings are miserable misfits, a limbo species belonging nowhere. An untended egg is more appropriate in a hungry belly.

perature and turning-times—as much as a dozen times an hour. Only the real parents can communicate with the egg to begin bonding. A human cannot be a parent bird and an appliance cannot suit the unknown needs of the eggs of an unknown species.

In the longer view, if it did hatch it would be promptly imprinted to the hovering human being, or the nearby cat, never learning what species it is. Parentless. Homeless. Completely abnormal mentally forever, with no understanding of its own world. Here's an example of a single incident I observed: a free-flying hand-raised robin fledgling approached a pigeon and begged to be fed. He got a whack on the head. What were his chances of survival in his world?

We must use our heads as well as our hearts. We *must* trust the parents to do what is biologically right for their offspring, even if it is a mystery to us. *Do not handraise young birds!*

moving, repairing or substituting nests of common songbirds

Fallen nests with contents can often be quickly put back at or close to the original site, or replaced with strawberry boxes, small Easter baskets, etc. Use your imagination! Mud can repair robin or swallow nests, a fallen nest could be put on an improvised shelf, a bit of string used to tie it back on a branch, a platform could be nailed to a tree to put a youngster on, and so on. Just make sure that the new site is sheltered from the sun, is safe from climbing predators such as cats and raccoons, and that there is drainage for rain.

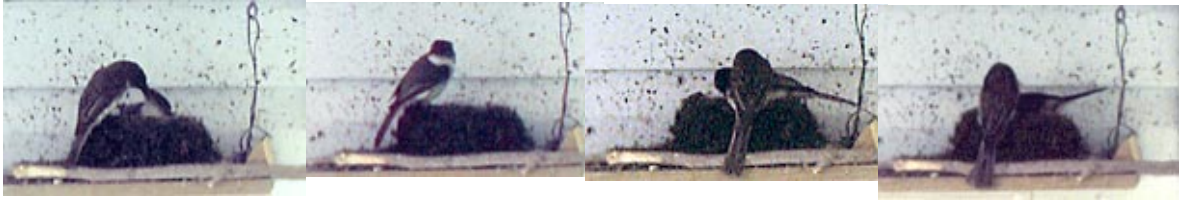
Note. Some species tolerate an unexpected change of nest or nest-site better than others; earlier stages of development are more sensitive than later ones; and all parents have some individuality in their responses to intrusion, upset and change.

Robins. Near our house a nest with two eggs was knocked off a fence-post. I found it fairly soon after the accident; one egg was smashed but the other still intact. I wet the the mud bottom of the nest and stuck it back on the post again. The female was back there in short order, laid the rest of her complement of eggs and raised them normally.



ground-nesting Caspian Tern breaking out. The hatchling needs no help to get out of its shell. When it knows it is ready it will do it all itself.

A Report. Older robin-ettes were found on the ground under nest tree (one dead) but nest not sighted. Kept 24 hours. I said hurry up and return them to same tree in substitute nest and they did, using a small basket. To their delight the parents returned and fed the youngster, who fledged a few days later.



4 photos of Eastern Phoebes attending their nestlings on small platform under eaves



Same pair, same nestlings, same site, but substitute nest

Phoebes. When an original nest under our clinic eaves became badly infested with tiny bloodsucking mites, we swapped it for a clean, bright red oval Easter basket a lot larger than their own (also applying diatomaceous earth** to the nestlings and banding them). Though the returning adults looked as if

there were exclamation marks over their heads when they whizzed around the corner the first time, it was the babies they responded to, and in half an hour all was back to normal parenting again.

Oriole. *A Report.* One nest was moved right across the street, yet the parents followed the young (hard to miss— so strident!) and finished raising them.

Bluejay. *A Report.* A nest was moved 20' and the jays continued with their duties.

Cavity nesters too generally have a strong voices, so will locate their young if a substitute nest-box is arranged quickly. They are all altricial, all leave nest at least a week later than their counterparts in non-cavity nests and therefore are further developed when they emerge. Of these, we are questioned most about starlings.

Starlings naturally seek sites in rock crevices, old woodpecker holes and hollow branches, but we have eliminated much of those desirable locations. So starlings have adapted:—drain-pipes, inside walls, rural mail-boxes, traffic-lights, and lately, bathroom and dryer air-vents. As the lids blow open with each gust of outgoing air revealing an exciting dark cavity, the starlings have watched, and then learned to pry them open when they are closed!

Both parents build, incubate, and feed. Like most altricials, the young have large, thick pale mouth flanges outlining the target area, and the target itself is bright yellow. After about 20-22 days, the fledglings emerge as flying, fully feathered, tan-coloured birds that follow their parents about for food for a period of time after that. They are often seen on lawns, where the dark parent walks ahead, finding various small insects and feeding them to the following fledglings. In this way the young birds learn what is good to catch, and how to turn over leaves, bark and other debris by levering: they insert the slender, closed beak under the object and then snap the beak open! I know of no other birds that do this.

Nesting pairs lever open vent-lids this way, but the nest material clogs the vent and human resi-

dents often ask me what to do. I suggest a substitute like a closed shoebox with an entrance-hole cut in it, fastened nearby—taped on the wall, for example. One man reported that after moving the six young, the parents were soon feeding them inside his creative shoe-box and they fledged successfully. (Soon afterwards, he put a wire-mesh cover over the vent.)

In another case, a Purple Martin house was down and a busy starling nest was discovered inside. The house could not be re-mounted, so some of the copious nest-material was placed in an ordinary birdhouse, along with the nestlings, and mounted about 100' away. The parents came back almost at once, mouths full, circling the vacant site, acting distressed. Then one adult heard the nestlings calling and soon found them. Thereafter, no problem: the family was raised and fledged normally.

nestlings

After being unfed about four hours—missing about 50 feeds—nestlings are usually so starved they will later die. After about one or two days of a bad diet (in captivity) their bones begin to fracture and their feather growth becomes hopelessly damaged. We have seen these sad sights often. If an emergency meal *must* be given, canned dogfood or scrambled egg with added crushed eggshell is reasonable, following which the young bird should be put quickly back where the parents can take over again. It has to be healthy enough to call to the parent or respond to parental arrival by opening its beak.

If you are *certain* it is too young to be “out” you can try replacing it in its nest. “But I’ve touched it!” callers cry. Except vultures, birds have no sense of smell and don’t care if the youngster smells of Chanel # 5 or pig manure. (Vultures have a *great* sense of smell, but their nests are so pheww! with rotting meat that they wouldn’t care either.) Why is this myth so *prevalent*? Even mammal babies, which also should be left alone, can be replaced. Parents of all kinds invest their very lives in the care of their young—give them a chance.

By watching where local birds nest, *sometimes* it is possible to foster a nestling into another nest of same species young of about the same size. Anything is better than hand-raising.

fledglings: the maiden voyage

Worried about a vulnerable youngster? Maybe it is a little debutante on its Coming-out Day, and it has no intention of going back to its nest. Just one day before the Big Leap, the fledgling is not quite ready. But next day it has



robin fledgling at this stage is open to misinterpretation



new-fledged oriole young from a sidewalk. They only needed to be put up in a bush nearby

evicted itself and there is no use putting it back as it will simply jump out again. The rules of that household have now changed. Instead of going to the nest with food, parents now go to the emancipated fledglings where they feed them and direct them away from danger. Quite suddenly, the novices are shepherded safely out of sight.

It is during this brief period of just a day or two that the nestling—barely a “toddler” by our measure—suddenly becomes a “pre-teen.” They have to develop muscles and learn fear fast; their world is fraught with dangers, the worst of which are cats that maim and kill, and children and well-meaning adults who interrupt this critical stage of life lessons. Humans can teach them *nothing*. Cats should be in, not out. People who watch learn to see and hear how the parents so skillfully manage to guide and feed up to four or more novices at a time. They are in a Total Immersion course of crucial survival skills taught by the best teachers in the world—their parents.

Though they can be lifted onto a branch for temporary safety from cats, fledglings should otherwise not be interfered with. Do not “birdnap!” Ironically, even when humans can sometimes “fix” injured fledglings, the captivity time robs them of vital parental training, so that after release their chances of survival are even worse, though now for a different reason.

A single parent?

But the mother was dead!” Someone finds a corpse and jumps to a three wrong assumptions at once: **1)** that it is a parent in care of nearby babies and **2)** that it is the female **3)** that the male is only a drone. Think a bit. The corpse may be an unrelated bird, and with most altricial species, the male shares the care equally. Some precocials such as ducks may share the protection of their precocious young (flotillas of 20+ ducklings show that) even sometimes including some ducklings of other species. They can’t count, don’t recognize their own young, and don’t need to.

How it helps to know a bit of biology! An official of a Parks Canada called me to say they were sending two baby hawks that had been found on the road, and that their parents were both dead. I asked, how did they know? Reply: their bodies were there too. So I said, “Right. Send the whole caboodle.” When I got them, the “parents” were certainly dead—they got that right—dried-up flat mats of feathers and bones, while the baby “hawks” turned out to be young pigeons. The corpses were those of other fallen young pigeons at a popular nesting site was on the underside of a bridge.

When one parent has been injured or killed, the other usually tries to take over. Success varies enormously according to the species, the seasonal conditions (availability of prey-food) number of young, and how well-developed they are. Read *Mar*, by Louise de Kiriline Lawrence, a story of a male sapsucker who raised his brood alone after his mate was killed. Surprisingly, there may be help from relatives such as an aunt or uncle, and sometimes from nearly grown siblings. Full-sized young moorhens help feed their new-hatched brothers and sisters from the latest brood even though they themselves are still dependent on their parents for guidance and protection. In this way, the juveniles practice and the parents get some much-needed rest time.

helpers at the nest

There is also this curious but well-documented response called “helpers at the nest.” Nearby parents of another species who may have just finished raising their brood, or have been suddenly deprived of their own babies, may be irresistibly attracted to someone else’s calling nestlings. Though uninvited, they then assist with the feeding. John and Janet Foster, well-known wildlife photographers and documentary makers, gave me a video they filmed of a Chipping Sparrow (who nests low in a dense bush) diligently feeding a nestful of Kingbirds high in a deciduous tree. The parents invited him/her to buzz off, but the small sparrow continued to bring insects between parental visits!

Of course, many nestlings die or are killed. This is natural. Accidents happen and other creatures need to feed their young too; it is a solid statistic that about 75% of young birds die in the first few weeks of life. There is little a human can, or even should, do about this apart from keeping cats inside and not interfering. Maternal instincts should be directed elsewhere!

smell: the touch of hands (and feet)

This is a very persistent and illogical myth about returning baby birds, as most birds have almost no sense of smell at all. What matters is the manner in which the baby was picked up and how long it is away from the parents. If a return is unsuccessful, other factors are at work: the frightening disturbance, the length of time away, or people staying too close, or the Maiden Voyage has taken place. Otherwise, how could banders band young birds in the nests as they regularly do for certain species?

There is another important aspect to smell: odour trails. Think of police dogs that search out suspects and bodies simply by taking a sniff at a bit of clothing; the powerful mammal ability to smell is beyond our imagination. So, when human feet blaze a trail to and from a nest-tree and hands rest on a tree trunk or branch to look in a nest, the scent is like a fluorescent sign at night, strong scent trail for the powerful noses of mammals to follow, telling every passing mammal that a human took an interest in this particular tree, suggesting that it needs to be investigated.

If one must peek, use a mirror on the end of a long stick, but the best tool of all is simply observation from a distance with binoculars. How often do the parents visit? What are they carrying? How long do they stay? How do they get along with their neighbours?

do's and don'ts

- Don't trim or cut trees in the breeding season. Wait until the autumn
- Encourage neighbours and friends to keep their cats in or in enclosures
- Leave eggs, nestlings, fledglings and chicks alone
- Show the children how to respect and enjoy birds by watching at a discreet distance
- Family books to read: *Mar*, by Louise de Kiriline Lawrence. *Secrets of the Nest* by Joan Dunning. *The Field Guide to Nests, Eggs and Nestlings of North American Birds*, by Colin Harrison
- Book to avoid: *Arnie the Darling Starling* and others of the cutesy-pet variety. Also avoid Farley Mowat's *Owls in the Family*, which makes taming owlets seem so amusing, but is unethical as well as illegal today.
- The best way to enjoy the life around you is to wonder, observe with eyes, ears, binocs, good field-book. Join your local nature club, borrow bird books from the library and learn about those living around you. Just sitting on the lawn watching robins feeding their young is an education.
- Do accept that it is a solid statistic that about 75% of young birds die in the first few weeks of life. There is little a human can, or even should, do about this apart from keeping cats inside and not interfering.
- **Don't hand-raise! Try all alternatives.** Overwhelming maternal instincts are better directed elsewhere!



Mourning Dove on nest photographed from a distance

Kit Chubb

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