

# How to Kill a Wetland—the 2023 Spring Migration on Samos, Greece

by Diana Kordas

My husband and I love birds and birdwatching, and one good thing about living on Samos is that it has reasonably big wetlands for an island of its size, with a lagoon and two huge reedbeds big enough to support booming bitterns. It is also on a migration route, which means that spring and autumn migrations are very interesting because we never know what might pass through here. Northern European birdwatchers spend a lot of time and money visiting the important birding sites of mainland Greece for a chance to see flamingos, spur-wing lapwings, Isabelline wheatears, masked shrikes, black-headed buntings, purple herons, glossy ibis, night herons, black storks, rollers, bee-eaters, golden orioles, red-footed falcons, spotted eagles, and little bitterns. Every one of these birds has passed through here in past migrations, plus a whole lot more. We've even had flocks of red-throated pipits and wood sandpipers on their way to the Siberian taigas. We never know what we'll see when we take our binoculars and go out looking, even in our own neighborhood, or even on our own land.

But the wetlands are dying, and this is a serious catastrophe for both the island and for the birds, migratory and resident. It is a catastrophe because we are losing the biodiversity that made Samos ecologically important and interesting, and it is a catastrophe for the birds themselves. The resident birds are dying out and the migratory birds cannot survive if there is nowhere to stop and nothing to eat when they do. Most have already traveled thousands of miles to get here, having crossed much of Africa or the Middle East. They must rest and find food. And this is the greatest problem for both resident and migratory birds—nothing to eat. There is not much food, except for the little seed-eaters, and even they are in trouble.

The Samos wetlands survived a through the 1974 Cyprus crisis, when the army occupied the southern beaches and built bunkers and planted land-mines on the edges of the flamingo lagoon. They survived encroachment by farmers and summer-home builders and hotel-builders (the last, barely, and one big hotel project was stopped by local conservationists in mid-construction to save one of the wetlands). Since 2017, though, bird populations around the wetlands have declined hugely. That was the year the cell-phone companies decided to provide wireless coverage to the southern beaches, which had up till then been largely left alone. Many new cell towers were erected, with panels directed at the beaches fronting the wetlands. The hotels and beach cafes all installed wi-fi. Bird and insect populations plummeted.

Lots of small birds are quite capable of living near man, and many nest quite happily in nearby trees or on the roofs of houses. Swallows, house martins and sparrows all nest near man, and the presence of new buildings should not have been, in itself, a reason for these birds to disappear. In the early years, the eaves of hotels along the beaches were lined with swallow and martin nests, and sparrows nested in the roof-tiles. The semi-built, now derelict, hotel project next to the reed-beds was taken over by colonies of swallows till the new cell-towers went in. By 2019, there were no more swallows or martins nesting in any of these buildings. By 2020, a few

sparrows had taken over some of the abandoned swallows' nests. Now even the nests have crumbled away, except for one row of old swallow nests deep under the wooden eaves of one beachside hotel, which are still occupied by a few sparrows. Since 2021, when 5G came to Samos, the insects have largely vanished. Most of the other small birds that lived along these beaches, the chaffinches, goldfinches, greenfinches, serins, wagtails, yellow wagtails, stonechats, whinchats and little reed warblers, are gone.

Wetlands aren't to everyone's taste, though they are popular with birds. For one thing, they are usually full of mosquitoes (which makes you wonder how anyone thought that a large, seven-building hotel next to a vast reed-bed was a good idea). In the past, you often couldn't go near the lagoon where the flamingos winter without being eaten alive. The beaches fronting the reed-beds were really only pleasant provided the wind was blowing (which, fortunately, it usually is). All the small reed birds live on insects, as do the frogs (now mostly extinct) which are in turn eaten by the larger waders, the herons and bitterns. But if they are sometimes uncomfortable for man, reed-beds are full of life—or should be. And they should be left alone, because nature needs somewhere to exist. Birds, insects, amphibians and small mammals do not use or need cell phones, nor do they need to be blasted 24/7 with cell tower radiation. They don't need 3G or 4G or 5G. They don't need wi-fi.

If you want to kill a wetland, just provide good cell coverage. It works a lot better than DDT, because everything dies. Of our two large reed-beds, one is located between the ancient site of the Heraion (the temple of Hera) and the airport. The airport, which is about a kilometer away from the once-lovely fishing village of Pythagoreion, has a 5G cell tower with five 5G panels, pointing in every direction. Virtually nothing lives there anymore, and virtually nothing is stopping there on migration, either. What stops, doesn't stay. The sky should be filled with swallows and martins and swifts, with falcons and marsh harriers and grey herons and little egrets and gulls. It isn't. The spotted eagles which used to winter here haven't been back for three years. The reeds should be droning with insect life and chirping with small birds. They aren't. We've been a number of times over the winter and spring, and this place is scarily dead. The resident birds are all gone except for a few crested larks, a few corn buntings and the odd cetti's warbler. There aren't even any gulls. The only migratory birds we saw in the reeds this year were three squacco herons in one of the freshwater channels near the airport. Near the ancient site, a mile or so away, we had a flock of Spanish sparrows and a flock of black-headed buntings. Neither stayed long.

East along the coast, the small lagoon that hosts flamingos in winter was the most interesting site this year, but this too was sad. Most of the resident birds are gone: the little reed birds and most of the other small birds, the coots, the small egrets, the little owls, and most of the grey herons. A few years ago we sat in an olive grove above the lagoon and watched for raptors: buzzards, marsh harriers, sparrowhawks, kestrels, goshawks, a lanner falcon, short-toed eagles and a rare Bonelli's eagle. The last Bonelli's I saw was a drowned juvenile, washed up on the beach nearby. This year we've seen hardly any marsh harriers, which used to be always overhead.

The flamingos do not breed here (the lagoon dries up in summer) but they have always used this lagoon as a nursery, so it is a good indicator of how they are breeding. There have not been any first-year flamingos for the past two years. Some of the ruddy shelduck, big handsome birds the size of a goose, have bred, but we estimate that only two pairs in ten have ducklings. There were some good migratory birds: a pair of glossy ibis, a pair of turtledoves, a pair of ducks that no one I've asked can identify, a few wood sandpipers, several black-winged stilts, a flock of sand martins. House martins and swallows chased the ever-diminishing supply of mosquitoes; they no longer breed in the area.

The second reed-bed lies just down the coast from the flamingo lagoon, and it used to be a wonderful place to watch birds. The stands of canes near the beach were always full of small birds; there were flocks of starlings and sparrows and yellow wagtails, chaffinches, goldfinches, stonechats, various reed birds, grey herons, little egrets, kingfishers and much more. There were always raptors overhead, and many marsh harriers. Deep in the reeds we always suspected bitterns, but they virtually never come out into the open and we never thought we would see one. Insects abounded.

Now there are no insects and virtually no birds. We stopped in an olive grove by fields of barley filled with wild gladioli and other flowers and saw no insects except one lone bumblebee. The starlings, sparrows and wagtails are all gone, along with most of the other small birds; even the crows were few and far between. There were no raptors. It was a long, fruitless, sad plod along the beach; even the glory of achingly blue waters and skies framing the Turkish coast along the Strait of Mykali couldn't lift our mood.

Then we saw the bittern, standing alone right in the middle of the beach, in the full afternoon sun. Of course we were amazed to see it—who wouldn't be? They're almost impossible to see, even in places where there are lots of them, because they so rarely come out into the open. But "open" is a relative term, and in the case of a bittern usually means you get a shadowy glimpse of it as it stalks prey along the edge of the reeds, only seen if you are looking very carefully (see the photo at the end). A bittern shouldn't be out in the open as we saw it. It allowed us to get far too close before it took off. It seemed disoriented and confused. Two days later we saw another bittern, this one a juvenile, in a tiny lagoon opposite the airport, next to a very busy road. It must have flown in from the larger reed-bed nearby, and this too seemed odd, as there are only two small patches of reeds in this place, and little cover. The 5G cell tower is only a few hundred meters from this place. Across the road are five luxury hotels blazing with wi-fi. The grassy area right next to the tiny lagoon is a busy car park for tourists.

We live on the opposite side of the island, an area without hotels or tourist beaches and relatively more wild land. We have no lagoons or marshes, so we don't get waterfowl on migration. While the cell towers have affected us greatly, we do still have insects, albeit far fewer, and the resident birds are not extinct as they seem to be on the south coast. In our immediate area, the spring has been full of birdsong: blackbirds, sardinian warblers, great tits, ring-necked doves and chukars chattering. We heard none of these birds on the south coast.

We get different sorts of migratory birds here, We've had wheatears and golden orioles; masked, woodchat and red-backed shrikes; flocks of swallows and martins and alpine and common swifts,\* and a very few hoopoes. And we have the bee-eaters, whose numbers are definitely not what they were in the past. Hoopoes and bee-eaters need a lot of insects, and if the south coast of Samos is anything to go by, these birds are not finding much to eat on their way. There are none of these birds on the south coast. So the bee-eaters linger here, where there is food, though they are having to work harder to find enough to eat.

But the gulls are hungry, too, and the seas are empty. And all day long, the gulls harass and hunt the bee-eaters, preventing them from feeding, catching them when they can, fighting over their rainbow carcasses. We first saw this metamorphosis from scavenger to raptor last year, and the gulls have improved their hunting skills since then. The bee-eaters, already tired and hungry, are hard-put to escape their remorseless pursuit.

In spring, birds migrate north. But sometimes in the evenings we have heard great flocks of birds calling to each other as they fly south. Where are they going? We don't know. Are they confused by all the cell towers? We suspect so. Last spring a flock of migrating ducks went round and round and round for hours before disappearing southward. I still wonder where they were headed, and where they got to.

After I finished writing this piece, I went outside for a break. The first thing I saw was a gull with a bee-eater in its mouth. A sign of the times?

\*Few of the swallows, martins and swifts stay here these days. We used to get great chattering flocks of alpine swifts overhead all summer, and in the evenings the air above our local town would be thick with common swifts. No longer. Nor do the swallows and martins build their nests under the eaves of town and village houses on this island, except rarely. We used to see many kestrels and Eleanora's falcons, and we knew of two holes in cliffs where the Eleanora's always nested. Now there are no kestrels and no Eleanora's. Both cliff holes have been abandoned. In the one case, a 5G cell tower was installed in a village directly across the bay, with a panel pointing directly at the nest. In the second case, a 5G booster was installed right over the cliff where the birds bred.