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"[N]ational-scale framings and ecocide-focused narratives can obscure on-the-ground relations among people, animals, plants, and ecologies."

Interspecies Relations in the Midst of the Russia–Ukraine War

TANYA RICHARDSON

On June 13, 2023, a photograph of red-and-black-spotted snake-like bodies appeared on my Facebook feed. It had been posted by Ivan Rusev, a renowned biologist and director of research at Tuzlivski Lymans National Park, south of Odesa on Ukraine's Black Sea coast. Rusev notified his thousands of followers that park staff had documented the arrival of the first living and dead animals from the Dnipro River—the mouth of which is approximately 350 kilometers away—after the Russian Army destroyed the Kakhovka Hydroelectric Station (HES) and its dam on June 6.

The creatures in the photo, Rusev wrote, were likely a rare species of newt, amphibians who live between still water bodies and shady terrestrial areas. Looking more closely, I could see that the newts' black legs were shriveled, possibly by salt water exposure.

Below the post, herpetologist and former Danube Biosphere Reserve employee Andrii Matveev confirmed Rusev's proposition: "They are Danube newts (*Triturus dobrogicus*) and are listed in Ukraine's Red Book. Some hypothesized that they also lived in the lower Dnipro River. Here is the unfortunately awful evidence." A few days earlier, some had arrived on Odesa's shores, where a researcher from the Institute of Zoology was the first to identify them. The newts joined dead dolphins—to which Rusev has also drawn attention—as icons of the ecological harm to Ukrainian and Black Sea environments caused by Russia's war against Ukraine.

The newts' arrival on the Rumeliiska current was not the end of their journey. Although 149 newts were found dead, 55 were still alive, possibly because the river water carrying them had not yet mixed with seawater. While some dead newts were sent away for analysis, Tuzlivski Lymans staff carefully packed up the living so that the Danube Biosphere Reserve's deputy director, Vasyl Fedorenko, could drive them to the town of Vylkove. Tuzlivski Lymans' saltwater habitats were not suitable for the newts, and the Institute of Zoology researcher had advised that they would have a better chance of surviving if released into places where their Danube relatives lived, like Vylkove's famous canals. Their likely original habitat in the lower Dnipro National Park had been swept away by floodwaters.

Understanding the impact of Russia's invasion of Ukraine on human–nonhuman relations requires some conception of the scale of this war of aggression. Russia, a major power with possibly the world's largest nuclear arsenal, has sent hundreds of thousands of troops and many thousands of tanks and other military vehicles into Ukraine. The Russian military has been firing an estimated 20,000 to 60,000 artillery rounds per day. As of May 2023, according to one report, it had launched more than 5,000 missiles and one-way attack drones into Ukraine. Russia has occupied Ukrainian nuclear facilities, including Europe's largest nuclear power plant, and the war has raised fears of attacks on nuclear plants or strikes with nuclear warheads. To stop and drive out the Russians, the Ukrainian military has used its own arsenal, supplemented by its Western allies, multiplying the harm to animals, plants, and ecologies, mainly in Ukrainian territory.

It is hard to think of a dimension of human or nonhuman life in Ukraine unaffected by this carnage. An area of Ukraine twice the size of Austria, including forests and agricultural lands, has been

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mined, and it may take over 30 years to clear. At least 56,719 hectares of forest land burned during the first year of the full-scale invasion, including ancient pine forests on chalk cliffs that have protected status; it may be impossible to restore them. Between February 2022 and February 2023, the war added the equivalent of Belgium's annual carbon dioxide emissions to the atmosphere. Some 44 percent of Ukraine's protected areas are in current or former combat zones, or have been occupied by Russian forces (and in some cases deoccupied). The destruction of the Kakhovka HES flooded 80 settlements, and left 700,000 people without drinking water and more than 500,000 hectares of agricultural land without the potential for irrigation.

Analysts draw on figures like these and on national-scale graphs and maps to indicate the scale, intensity, and longevity of the war's impacts. They also frequently use the term *ecocide*—a concept that does not exist in international law but is part of the Ukrainian criminal code—to convey moral outrage about the criminality of Russians' actions and call on the international community to hold them to account. These moves are necessary and important, but they create the risk of Ukraine being viewed exclusively as a zone of catastrophe, and of its citizens, plants, animals, and ecologies being seen only as victims. This was an issue even before February 2022, as Darya Tsymbalyuk has written with respect to both Chornobyl and Ukraine's Donbas region: she challenged such perceptions by researching and renarrating Donbas through human–plant relations.

There are three key dangers in narratives of ecocide. First, emphasizing ecocide can obscure the highly unequal distribution of destruction at national, regional, and local scales. A glance at the Zoï Environmental Network's map of war-related damage shows a dense band of contamination across the east, a thick line down the lower Dnipro to the Black Sea, a line along the northern border, and smaller blotches scattered across the rest of the country. Second, emphasizing only destruction may lead to the conclusion that there is nothing left worth protecting, which can open the door to further exploitation by Ukrainian or foreign companies.

The third danger—this article's focus—is that national-scale framings and ecocide-focused narratives can obscure on-the-ground relations among people, animals, plants, and ecologies (including those that do not fit such narratives), as well as the intellectual and practical efforts of Ukrainians to understand and look after them. Though these stories and this labor may be visible to particular Ukrainian audiences, they are less so to others, and they may disappear altogether when the information is distilled into reports and travels outside Ukraine. This is a problem not only because we may overlook plant, animal, and microbial protagonists, but also because such approaches occlude Ukrainians as experts and perpetuate hierarchies in knowledge production.

This article describes three different kinds of wartime encounter between Ukrainians, animals, plants, and ecologies by drawing on news articles, social media posts, conversations with colleagues, and online interviews. These interspecies relations range from mutualistic to relatively distant, conservation-oriented to agricultural, and urban to rural, whereas the war situations cover frontline battle zones, weaponized water, and occupational regimes somewhat removed from active fighting.

Inspired by the solemn but not catastrophizing narrative of Natalia Shevchenko's 2023 documentary film *Water, Land, Fire*, I seek to enlarge the space for environmental narratives between catastrophe and heroism. We need narratives that simultaneously recognize fragility and strength, ingenuity and futility, and indifference and mutuality in interspecies relations—relations that could be ruptured by a Russian missile, bomb, bullet, or mine before those involved take their next breath.

THE INSHORE BLACK SEA AFTER KAKHOVKA

Immediately after Russia destroyed the Kakhovka HES, journalists and scientists began comparing the scale of the likely consequences to that of the 1986 explosion at the Chornobyl Nuclear Power Plant. Environmental scientist Peter Gleick claimed that the HES was the largest piece of water infrastructure ever destroyed during a war. Kakhovka's 2,155 km^2 area made it one of Europe's largest reservoirs, and it was Ukraine's largest by volume at 18.2 km^3.

The Kakhovka HES was built in the 1950s as the last in a series of six dams and seven hydroelectric stations that Soviet authorities commissioned along the Dnipro to provide electricity and water for citizens, industry, and, in Kakhovka's case, irrigation. The title of Anna Olenenko's 2019 article about the reservoir, "Our New Sea Is Our New Sorrow," captures how, by displacing thousands of people, drowning the Great Meadow (an important site in Cossack and Ukrainian history), and producing ecological problems, the reservoir's creation was itself a disaster.

As Kakhovka's water poured over the dam's ruins at a rate of 900,000 tons per second in the first few hours, the socioeconomic and environmental consequences upstream, downstream, and in and along the Black Sea came into focus all too quickly. Millions of fish lived in the reservoir, including 20 commercial fish species. As the water receded, residents posted videos of fish writhing in the mud as far as the eye could see. Disturbing images of fish gasping for air were soon replaced with horror at the stench of their decomposing bodies and the loss of a generation of fish spawn.

The Ukraine Nature Conservation Group (UNCG) drew attention to the 5,000 km^2 of natural habitats impacted, emphasizing that the harm done to rare habitats and biodiversity by the destruction of Kakhova is much worse than Chornobyl's effects. More than 50 interconnected protected areas above and below the dam were affected, including the UNESCO Black Sea Biosphere Reserve, five National Nature Parks (Lower Dnipro, Oleshkivsii Sands, Kamianska Sich, Great Meadow, Biloberezhzhia Sviatoslava), seven sites listed under Europe's Emerald network, 42 endangered habitats listed under Resolution 4 of the Bern Convention, and at least three Ramsar wetlands.

The harm to rare habitats and biodiversity is much worse than Chornobyl's effects.

Ukrainian scientists, conservationists, and environmentalists are trying to collect data to document environmental war crimes across the country and to set baselines in order to try to begin to understand the consequences of massive change for animals, plants, and their habitats. As scientists and environmentalists discuss their work in documentary film, television, and radio interviews, they display openness and humility about what they know and what it is possible to know. This contrasts sharply with the way in which scientists were compelled to use their knowledge and authority to conceal the unfolding consequences of Chornobyl, and with the objective tone of some international organizations' environmental reports about the war.

This public display of the search for understanding and the tentativeness of knowing is vividly illustrated by the efforts of marine biologists and activists to assess the war's effects on the Black Sea coast near the city of Odesa. On July 19, 2023, Odesa Regional Radio posted an interview with Vladislav Balinskii, an activist with Green List Environmental Group, and Yurii Kvach, a leading biologist with the Odesa branch of the Marine Biology Institute. The interview appeared on my Facebook feed among images documenting Russian missile strikes on an Odesa port storage facility holding 60,000 tons of grain, a graveyard, and residential buildings. The strikes had followed Russia's withdrawal from the United Nations–brokered Black Sea Grain Initiative.

A few days earlier, Balinskii had posted a video of dives he was able to do off Odesa's beaches, thanks to protective netting placed along the breakwaters to prevent mines from drifting in, so Odesans and visitors could have a beach season this year. In a voiceover, Balinskii commented that the greenish water was much clearer than the previous day, even though the sea bottom was carpeted with algae-covered reed stems from the Dnipro. Some 50 to 60 percent of the mussels in the areas he swam in had died. Balinskii's willingness to dive enabled other scientists, like Kvach, to get a glimpse of what was happening to Odesa's marine life.

Balinskii and Kvach explained that the mussel die-off was serious not only because of the role that mussels play in filtering and purifying water, but also because their decomposing bodies would further contaminate the water. Kvach noted that dead mussels could be found at all Odesan beaches with breakwaters, though the situation farther out was unknown. He and others had hypothesized that the mussels would be able to survive the freshwater onslaught because they can close up and "breathe without oxygen" for up to three weeks. But the mussels had not done so, and Kvach presumed that they had consumed Dnipro water.

Balinskii and Kvach speculated about other possible causes of death: perhaps the mussels had ingested heavy metals from the bottom of the Kakhovka reservoir, or the water carried toxic bacteria. All Kvach knew was that scientists' forecasts were wrong, and the situation on the Odesa coast was worse than they had expected. More expeditions were needed to confirm what was happening, but the military administration was so far unwilling to grant permission, and with the intensification of Russian strikes, it might be some time before they could proceed. Kvach's proposals for restoration included the construction of artificial reefs, but they would have to wait until Russia is defeated.

KEEPING ANIMALS ALIVE UNDER OCCUPATION

Although Ukraine might be best known beyond its borders as an agricultural "breadbasket," it is also home to many unique habitats rich in wildlife and rare species. Seven percent of Ukraine's territory—4.5 million hectares—comprises its protected area system. These areas are largely located in forests and wetlands along the country's edges and in steppe areas in the east and south. They were heavily impacted when Russia invaded.

Since the UNCG was formed in 2014, its affiliated biologists have worked to expand the protected area network, promote the listing of the country's species in the Council of Europe's Emerald Network, and excavate and popularize the history of nature conservation in Ukraine. Zoologist Oleksii Vasyliuk, UNCG's co-founder and board chair, played a key role in gathering donations to help parks affected by the 2014–22 Donbas War in eastern Ukraine and in documenting its consequences. Thanks to his ingenuity, in the first days of Russia's full-scale invasion, UNCG created a mechanism to channel donations from abroad to Ukraine's oldest protected area, the F. E. Falz-Fein Askania-Nova Biosphere Reserve (and later to others).

Many beekeepers have returned to deoccupied territory.

Due in part to these donations, the Askania-Nova Reserve continued operating as a Ukrainian institution for over a year after Russian soldiers occupied the area around it. The Reserve's story is important both because it was possibly the only formally functioning Ukrainian public institution in occupied territory and because human–animal relations helped make this possible.

The Reserve is located in the Kherson Region, just north of Ukraine's border with Crimea, the peninsula illegally annexed by Russia in March 2014. With a total area of 33,306 hectares, it has a zoo, an arboretum, and a core zone of 11,054 hectares where fescue-feather grass predominates and bison, antelopes, zebras, and other animals pasture in semi-free conditions. Conservation began in the area in the late nineteenth century. In 1875, Friedrich Falz-Fein, a descendant of German settlers and landowners who pastured and bred merino sheep, founded a zoo to conserve and breed rare animals from Africa, Asia, and North America that were related to steppe animals that had gone extinct. In 1898, he began experimenting with the role of ungulates in maintaining uncultivated steppe flora and habitats. The area was formally established as a state park in 1919, as the Chapli Nature Reserve in 1921, and as a Biosphere Reserve in 1984.

The Reserve's unique acclimatized animal populations survived revolution, two world wars, and Stalinism. They help maintain the largest never-cultivated steppe ecosystems in Ukraine and Europe. The 3,000 animal species found there include not only rare steppe fauna and migratory birds, but also iconic descendents of Falz-Fein's animals, such as Przewalski horses, which played a part in helping bring the species back to Mongolia. The horses pasture in extensive fenced steppe grasslands for much of the year, and are fed and watered in enclosures during the cold months.

Before the invasion, most of the reserve's 268 employees looked after the animals and the arboretum. Documentary films and media stories give glimpses into the mutualistic relations between the staff and the animals, and reveal the knowledge required to look after the animals and move them between their winter enclosures and steppe. As Vasyliuk said, "Without the people, Askania-Nova would cease to exist."

Although Russian soldiers visited the Reserve regularly, they did not initially try to replace its leadership or subordinate it to the Russian Ministry of Natural Resources and Environment. The Reserve could still access funds for salaries, but not for other expenses. This created an urgent problem: stores had run down, since the Reserve had been about to conduct a tender to purchase feed when Russia invaded. Vasyliuk posted about the crisis on Facebook while fleeing his hometown south of Kyiv, which was under heavy bombardment by Russian warplanes.

I saw his post before he took it down (for fear the Russians would kill the director) and messaged him. On February 28, I transferred a personal donation and funds I'd gathered from family and friends to UNCG via its website. Reserve staff had meanwhile identified a farmer who would sell feed to the Reserve so Vasyliuk could transfer funds to them immediately. These transactions unfolded as other international conservation organizations contacted Askania-Nova about providing assistance and established a process for transferring funds from abroad to the Reserve.

According to director Viktor Shapoval, who left the Reserve in the fall of 2022, Askania-Nova remained a Ukrainian institution for a year

because staff managed without having to ask for assistance from the occupying regime. The Academy of Agrarian Sciences continued to pay salaries, though accessing them became more difficult when the ruble replaced the hryvnia. Donations channeled through the UNCG and later other organizations covered the costs of running the Reserve for the next year: food, medicines, building materials, and even a tractor to cut hay for the animals. Enterprises in occupied areas re-registered in Ukrainian-controlled territory, which made it easier for UNCG to pay them. Selling to a still-Ukrainian organization saved them the trouble of getting their assets out of occupied territory.

On March 22, 2023, when the occupying authorities appointed a new director, subordinated the Reserve to the Kherson Regional Ministry of Natural Resources and Ecology, and re-registered it as a State Autonomous Institution, administrative and scientific employees departed. They did not want to work with the occupying power, and if they did stay they could be charged as collaborators under Ukrainian law. But the staff that look after animals are not considered collaborators. They remain out of commitment to the animals and because of the obstacles to evacuating. Threats to the Reserve include the killing, theft, and sale of individual animals (some of which would fetch a price of $3,000) and harm to rare habitats and species caused by occupiers deliberately burning the steppe.

Beekeeping after occupation

The wartime story of bees and beekeepers in eastern Ukraine's Kharkiv Region involves much more death and displacement than Askania-Nova has seen. Kharkiv's people, land, and bees have experienced occupation and liberation; parts of the region remain battle zones. It is not known how many Kharkiv bee families have perished and how many beekeepers have died or fled. But Denys Soldatov, the head of the Kharkiv Region Association of Beekeepers, says that many beekeepers have returned, and many abandoned bees survived two winters without beekeepers.

It is tempting to counter a narrative of catastrophe by reading these as instances of "resilience," a concept used ever more frequently in Ukraine. The term has been critiqued by social scientists such as Brad Evans and Julian Reid for its perpetuation of policies and practices that demand constant accommodation to permanent danger, narrowing possibilities for action to change the structures that produce the danger in the first place. Beekeepers themselves talk about danger and survival while stressing their profound uncertainty about the future, the limits of persistence, and the need for a Ukrainian victory.

Kharkiv is part of Ukraine's "honey belt," an area encompassing several eastern and southern regions where bee families gather, on average, 50–80 kilograms of honey per season. Beekeepers in these regions played a big part in maintaining Ukraine as one of the world's largest exporters of honey prior to the full-scale invasion. The eastern part of Kharkiv Region was richest in nectar-bearing crops and trees; commercial beekeepers there had apiaries ranging from 300 to 500 families, in contrast to 80–100 families in the western part of the region. Before February 2022, there were 1,971 officially registered apiaries in the region and 102,793 bee colonies. The actual number of beekeepers could have been 30 percent higher, since many households with small apiaries did not register them.

Yevhen Rudenko, a honeybee researcher and the director of the Institute of Animal Breeding in Kharkiv, estimated that 10–20 percent of bees in occupied territories had survived bombardment and occupation. Honey production fell 50 percent in 2022. Bee families perished in direct and indirect ways. Some hives were struck by mortars, rockets, or bombs. Others were destroyed by shockwaves from munitions that landed nearby. More distant explosions knocked bees off their frames, and they perished from the cold because they were unable to climb back to their nests. Soldatov cited his own experience of other ways of destroying an apiary:

> They drove a tank over my hives. Then they stole everything they could. The bees weren't even defending themselves because it was March and they weren't flying. When we sank the [Russian missile cruiser] *Moskva* I calmed down.

Since beekeepers fled from the fighting and occupation in late winter, they were not able to open the overwintering buildings in which their hives were kept, and the bees could not fly outside to search for pollen or to defecate. In cases where hives were not enclosed, some bee families starved because the beekeeper was unable to give them extra frames of honey. When beekeepers were not present to add frames for bee families to expand, the bees often swarmed: in such cases, part of the

family flew off with the old queen to make a new home in a tree hollow or crevice.

Keeping an apiary going in unoccupied Kharkiv was not easy either. Oleksandr Kalashnikov is a beekeeper and queen breeder who lives in a single-family dwelling on the south side of the city of Kharkiv. He lost neither his house nor his apiary, though several bombs fell within about 400 meters. In the spring of 2022, Kharkiv was sometimes shelled 50–60 times a day, and Kalashnikov often was unable to work with his bees, even though they were just 15 steps away, for fear of shrapnel. When the bombing stopped, he was compelled to go outside by the need to look after his bees, whereas his dog completely gave up walking around the yard. "Working with my bees calmed me down," he said.

> When there are strikes somewhere in the city it makes you anxious. When you look after bees, you are distracted. It's a kind of mutual therapy. I am helping them live, and they distract me, and let me take a break from the battles happening around me.

Deoccupation posed another set of challenges. Some 40 percent of agricultural land normally planted with nectar-bearing crops such as sunflower could not be cultivated. That doesn't mean there were no nectar-bearing plants, just that they were mainly weeds rather than the usual nectar-abundant sunflowers. Another problem is that these territories are heavily mined and there are only enough sappers to demine high-priority areas: roads, electricity lines, and village territory but not the vicinity. There are instances when a beekeeper can see his still-intact apiary but cannot reach it. In another case, a sapper cleared a path to the apiary, but the beekeeper could not move it to other nectar flows as he normally would.

Black Sea coastal restoration will have to wait until Russia is defeated.

Most beekeepers under the age of 50 whom Soldatov knows are in the army, but many over that age have returned to deoccupied territory—even the 20 percent of the region that sees active fighting and frequent artillery strikes. Their apiaries and houses have been severely damaged. Rebuilding is a challenge: aside from the security situation, their small pensions and rising equipment costs make it difficult for them to get what they need.

Serhii Mykolaivych is one such beekeeper. He was born in a village in Kharkiv but lived most of his adult life in a city in the Donetsk Region. Selling the honey produced by the 50 families he kept in his home village was a significant supplement to his pension and allowed him and his wife to live a good life. When Russian-led groups took over his city in 2014, the couple left for their Kharkiv apiary; they returned home when Ukraine took back control of the city. When the full-scale invasion began in February 2022, they fled again, this time to the Poltava Region because the village where they kept the apiary was occupied by Russian troops. When they returned in April 2023 after Kharkiv's liberation, their apiary had been destroyed and their house ruined. "They burned the hives to keep warm," he said.

> They cut out the honey comb and ate it. They used all the coal, all the wood. They broke the fence and everything they could when they left. . . . When we came back everything was gone. There were no hives, no shovels, nothing anywhere.

Still, they decided to remain and rebuild. Serhii Mykolaivych got a couple of empty hives from a friend. In May, a swarm flew into his yard, likely from the apiary of one of the other beekeepers who had set up in the village. He managed to retrieve some frames from his home in Donetsk and caught two more swarms in June. He requeened them with queens he bought from a prominent breeder at a reduced price. When we spoke on July 24, he was preparing to put supers on his hive to be able to gather honey from the sunflowers that farmers in his area had planted. But the regular artillery strikes are difficult to bear, particularly for his wife, who suffered a stroke in 2014.

Though beekeepers persist and bees survive without beekeepers, their separation brings complications. Rudenko and Soldatov were both excited about bees surviving two winters without any people to treat them for diseases. Though some may have had natural resistance to the varroa destructor mite, many—possibly the majority—do not. Given the presence of large numbers of unmanaged families and the swarms they produce, the population of varroa mites has grown dramatically. This puts bee families that aren't resistant at risk and makes timely treatment more urgent.

In 2022, it was difficult to get those treatments. In some cases, beekeepers had a choice between

buying food for themselves or treatments for their bees; they chose the former, resulting in losses of bee families. Kalashnikov said he noticed an unusually high number of mites in his families in July 2022. He gave the bees an additional treatment in the fall and they overwintered well, but others' did not.

Soldatov declared that as long as beekeepers are alive, they will have bees: "Only four families remained but I can't live without them." The Kharkiv Beekeeping Association had organized the purchase and transportation of 1,200 bee packages from western Ukraine to be sold to those who had resources and given to those who did not. But Kalashnikov said people were on the fence about whether to continue, given the low prices for honey due to complex causes, including the loss of export routes and markets. "People hesitate," he said. "They ask, 'Should I expand what I have now, or sell it and leave? Change my work or join the army?'"

Fragility and pragmatism

The rapidly multiplying ecological harm and loss of nonhuman life drives the impetus to count the casualties, accumulate evidence, and recount narratives of catastrophe and ecocide in the hope of obtaining justice and compensation, even if it cannot replace what is lost. Shoring up the capacities needed to withstand dangers and physical, social, and psychic harm before the war ends likewise gives rise to stories of heroic people, rivers, wetlands, forests, and animals, and increasingly of "resilience." Though understandable, even necessary, these narratives can divert attention from the profound fragility and uncertainty experienced in daily life, and from finding ways to provide assistance.

People featured in this essay have suggestions about practical things that officials, scientists, and ordinary citizens around the world can do to support their professional communities. UNCG members recommended that Russians be removed from any decision-making roles in international nature conservation organizations. In light of war-induced funding cuts to protected areas, international conservation organizations could allocate grants to individual parks and reserves to pay for operating costs, equipment, and monitoring, channeling the money via NGOs. Non-Ukrainian scientists could help devise methods to study impacted territories where pre-existing data is minimal, and to work as research partners rather than using Ukrainian scientists as mere data-gatherers.

The Kharkiv Beekeeping Association has welcomed additional funds to purchase bees, treatments, and equipment. Since Ukraine's Agriculture Ministry and international development agencies only have funds to support a limited number of commercial apiaries, the Kharkiv Association helps all beekeepers regardless of their registration status or pre-invasion apiary size. Meanwhile, honey-importing countries could buy Ukrainian and help find ways to get honey out through neighboring countries such as Poland, which has banned Ukrainian agricultural imports.

I wrote these words in early August 2023. When you read them, will the animals of Askania-Nova still be alive and in Reserve territory? Will the beekeepers and their bees have avoided artillery strikes and landmines? Will more infrastructures have been weaponized like the Kakhovka HES? How many more habitats will be ruined and species displaced? These are the dangers that landscapes and all forms of life will face every day in Ukraine until Russian troops are forced to leave. ■