

ARTICLE

The Effect of Russia's Invasion of Ukraine on Non-Human Animals: International Humanitarian Law Perspectives

Saba Pipia

PhD Law; Associate Professor, Georgian-American University (Georgia); Legal Adviser, Diakonia IHL Center (Jerusalem)

Email: s.p.pipia@gmail.com; saba.pipia@gau.edu.ge; saba.pipia@diakonia.se

Abstract

Since Russia's full-scale aggression against Ukraine, there have been thousands of instances of civilian casualties, damage to the natural environment and cultural property, destruction of buildings and infrastructure, blockading of ports, siege, capturing installations containing dangerous forces, and other consequences that accompany hostilities. In addition to the fatalities related to humans (civilians and combatants alike) and their property or environment, the war in Ukraine has also accounted for non-human tolls – namely, the destruction of animals or damage to their habitats.

The primary objective of this article is to study three patterns of animal suffering documented during Russia's invasion of Ukraine: (i) targeting zoos and killing zoo animals; (ii) extermination of the Black Sea dolphin population; and (iii) eating pigeons or other pets in besieged localities, and to analyse these patterns in the light of applicable rules of international humanitarian law (IHL).

The idea of this research is to underline that war can have a significant effect on various categories of animals, and Russia's invasion of Ukraine is just another example of this. The article also discusses how, and the extent to which international law can provide protection for animals in armed conflict, and whether there are any gaps in the applicable IHL rules related to the protection of animals.

Keywords: animals; armed conflict; Ukraine; zoo; dolphins

1. Introduction

Since Russia's full-scale aggression against Ukraine,¹ there have been thousands of instances of civilian casualties, damage to the natural environment and cultural property, destruction of buildings and infrastructure, blockading of ports, siege, capturing installations containing dangerous forces, and other consequences that accompany hostilities.² In addition to the fatalities related to humans (civilians and combatants alike) and their property and environment, the war in Ukraine has also accounted for non-human tolls – namely, the destruction of animals or damage to their habitats.

Several reports indicate that animals have suffered in various circumstances: companion animals were abandoned and left behind by owners who fled the war for other countries; shelters for rescue animals ran out of food, causing the death of thousands of stray animals; farm animals have been exterminated as a result of shutting down production in conflict zones; zoos in various cities were targeted during attacks, leaving hundreds of captive animals killed, or having escaped and being unaccounted for; civilians in the besieged city of Mariupol resorted to hunting animals on account of the shortage of food; and, lastly, thousands of dolphins have died *en masse* in the Black Sea, putting the entire ecosystem now at risk.³

Animals have played a significant role in wars throughout the ages; they were employed for transportation, combat operations, feeding soldiers, delivering messages, among other reasons. Yet, they could not find space for protection under international humanitarian law (IHL), which appears to leave animals aside and forsaken, probably because the legal value of non-human animal beings has been subject to controversy among the international community, and consensus on whether to acknowledge animal welfare as something that needs to be cared for is still not manifestly evident.

While the anthropocentric nature of IHL primarily brings human victims into the focus of protection, animals can also be seen as collateral victims of

¹ The author of this article believes that Russia's invasion of Ukraine on 24 February 2022 and its actions in the aftermath constitute unlawful use of force, which is prohibited under the Charter of the United Nations (entered into force 24 October 1945) 1 UNTS XVI, art 2(4), and also amount to aggression as provided under the United Nations General Assembly (UNGA) Res 3314(XXIX) (14 December 1974). The article refers to the terms Russia's 'invasion' and 'aggression' interchangeably, emphasising the illegality of Russia's actions under international law.

² See Wolfgang Benedek, Veronika Bílková and Marco Sassòli, 'Report on Violations of International Humanitarian and Human Rights Law, War Crimes and Crimes Against Humanity Committed in Ukraine since 24 February 2022', Organization for Security and Co-operation in Europe, Office for Democratic Institutions and Human Rights, 13 April 2022, <https://www.osce.org/files/f/documents/f/a/515868.pdf>.

³ For more information about the impact on the environment of Russia's invasion of Ukraine see Empire Nyekwere and Nuleera Ambrose Duson, 'A Legal Assessment of the Environmental, Humanitarian, and Economic Impacts of the Russia/Ukraine Armed Conflict' (2022) 4(3) *International Review of Law and Jurisprudence* 46–62. See also Nathan Rott, Claire Harbage and Hanna Palamarenko, 'Shredded Trees, Dead Dolphins and Wildfires — How Russia's Invasion Is Hurting Nature', NPR, 1 July 2022, <https://www.npr.org/2022/07/01/1106327585/russia-invasion-ukraine-environment-impacts>. For a detailed overview of animal suffering in Ukraine see Section 3 of this article.

the devastating consequences of war. Although IHL does not explicitly protect animals, sometimes safeguarding animal lives or health is tightly linked to human survival and, in this way, it also provides guarantees for animal protection.⁴

Evaluating the effectiveness of IHL in relation to the protection of animals goes beyond the scope of this article. This research merely analyses the extent to which IHL rules can be applied to animals and whether animals can be granted some kind of protection under the rules. The fact that IHL does not specifically protect animals is presented from a neutral perspective. The need to modify IHL to allow better protection for animals could be the subject of an independent research project; this article adopts a more pragmatic approach, which suggests that during the war in Ukraine we must apply the law that we have at present, without challenging the sufficiency of this law.

With this in mind, the primary objective of the article is to study three patterns of animal suffering documented during Russia's invasion of Ukraine – (i) targeting zoos and killing zoo animals; (ii) the extermination of the Black Sea dolphin population, and (iii) eating pigeons or other pets in besieged localities – and to analyse these patterns in the light of applicable IHL rules. Focusing on these selected topics does not necessarily provide a thorough analysis of animal suffering in Ukraine. As mentioned on numerous occasions throughout the article, animals have suffered in several ways during the war and their suffering still continues. The reason for choosing these case studies is simply because of the availability of relevant information, which allowed us to conduct legal analysis of these matters.

First, in respect of zoo animals, the article discusses whether wildlife animals living in zoos can be qualified as components of the natural environment for the purpose of protection granted under IHL, or should they be considered public or private property, thus availing different types of protection under applicable IHL. The article also attempts to analyse the status of zoo animals under IHL: do they qualify as civilian objects, or should they be granted a different status?

Second, the extensive death of Black Sea dolphin populations raises alarm over the risk to the entire ecosystem in the Black Sea; this case, therefore, is discussed in the light of the potential long-term, systematic and severe damage to the natural environment and biodiversity in the Black Sea. Furthermore, the article also discusses whether causing the massive killing of dolphins could amount to an environmental crime under applicable international criminal law (namely, the war crimes clause of the Rome Statute⁵) or the potentially applicable crime of ecocide (which is criminalised under the Ukraine penal code⁶ and which was defined internationally by the Expert Panel of the Stop

⁴ Marco Roscini, 'Animals and the Law of Armed Conflict' (2017) 47 *Israel Yearbook on Human Rights* 35, 61–62.

⁵ Rome Statute of the International Criminal Court (entered into force 1 July 2002) 2187 UNTS 5 (Rome Statute) art 8(2)(b)(iv).

⁶ Ukraine Criminal Code (2001), art 441.

Ecocide Foundation in 2021⁷). To that end, the article suggests that a domestic prosecution for alleged ecocide is more feasible than a prosecution on the international stage.

Third, the article analyses the legality of pet-hunting practices in besieged cities, such as Mariupol. This potentially life-saving behaviour by desperate people, who are trapped under blockade, is not something new. History has documented that, for example, during the Siege of Leningrad, eating pets became habitual, and people first turned to cats and dogs, and then pigeons.⁸ The article focuses on whether the situation of starvation – used as a method of warfare – can actually allow the conflict-affected population to divert from ethical, moral or legal values related to animal welfare and resort to pet-hunting, which otherwise would have been prohibited during peacetime. It also analyses the responsibility of a party to the conflict whose actions caused starvation, not only for using starvation as a method of warfare but also for indirectly inflicting harm to animals.

It should be noted that, at the time of drafting this article, military activities are still ongoing in Ukraine, and parts of its territory still remain under Russian occupation; therefore, the information that is available publicly might not be thorough and might not reflect the full scale of the fatalities that this war is creating. The number of casualties is growing each day, and the Russian retreat from various cities brings to light new evidence of war crimes. Therefore, as an underlined research methodology, this article refers to instances that have already been documented, as well as examining hypothetical scenarios for which pieces of evidence are not yet available. Additionally, some sources referred to in the article, describing facts, might not be purely academic but are more of the nature of news updates and blogs. The reason for this is the ongoing nature of the war, which causes a scarcity of academic publications on this matter because information keeps changing on a daily basis. Nevertheless, the author has tried to use only verified sources.

Finally, the emphasis on the animal victims of the Russian aggression in Ukraine does not in any way undermine or diminish the significance of the devastating consequences of this war for humans. Given the massive scale of human suffering in Ukraine – the thousands killed by bombs or deliberately executed by Russian soldiers – for some people it may seem inappropriate to worry about the fate of non-human animals. However, as some commentators suggest, ‘the suffering of starving, burned, or wounded animals must also count among the war’s costs – and possibly among its crimes’.⁹ The author of the present article believes that from the legal point of view, both human and non-human victims of war should be granted protection and should be able to

⁷ Stop Ecocide Foundation, Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text, June 2021, <https://www.stopecocide.earth/legal-definition>.

⁸ Vladimír L Piankevich, Oleg Yu Plenkov and Tatiana E Sokhor, ‘People and Pets in Besieged Leningrad’ (2020) 65(1) *Vestnik of Saint Petersburg University History* 158, 162

⁹ Peter Singer and Oleksandr Todorchuk, ‘The Nonhuman Victims of Putin’s War’, *Project Syndicate: The World’s Opinion Page*, 5 April 2022, <https://www.project-syndicate.org/commentary/ukraine-animal-victims-of-russia-invasion-by-peter-singer-and-oleksandr-todorchuk-2022-04>.

seek justice. Caring more about the legal protection of animals during the war should not be understood as caring less about humans. Those two paradigms should not be perceived as mutually exclusive and must be addressed in parallel to each other.

2. Overview of the use and protection of animals during armed conflict

2.1. (Ab)use of animals in armed conflicts

Animals are affected during armed conflict; they experience emotional and physical suffering, pain, and distress. Animals can be targeted, used as weapons or means of transportation. Despite the fact that animals are overlooked under IHL, wars have been bringing anguish and tragedy for them. Indeed, more than any other factor wars have caused the decline in animal populations.¹⁰ The history of war proves that before the mechanisation of warfare, armies often conscripted large numbers of animals into service to support their efforts: horses, donkeys, oxen, bullocks and elephants carried men, material and supplies; pigeons carried messages; camel-mounted troops have been employed in desert campaigns, and cavalry horses often led the charge on the front line; dogs have been particularly widely used by the military, and remain so today – their roles have included tracking, guarding, delivering messages, laying telegraph wires, detecting explosives and digging out bomb victims; rats have also been used to detect mines, while dolphins and sea lions continue to be trained to protect harbours from sea mines and divers; some reports even documented cats being used to hunt rats, canaries being used to detect poisonous gas and, in the Second World War, glow worms being used for illumination at night for reading.¹¹

2.2. Protecting animals under IHL

IHL is strictly anthropocentric.¹² The word ‘humanitarian’ in the title of this branch of law defines its nature and makes this law focused exclusively on humans.¹³ This explains why IHL is mute on the protection of animals in armed conflict. All sets of rules provided under IHL are intended to protect humans and to minimise damage potentially inflicted during wars.¹⁴ Therefore,

¹⁰ Manuel J Ventura, ‘Repression of International Crimes’ in Anne Peters, Jérôme de Hemptinne and Robert Kolb (eds), *Animals in the International Law of Armed Conflict* (Cambridge University Press 2022) 313, 314.

¹¹ Janice Cox and Jackson Zee, ‘How Animals Are Harmed by Armed Conflicts and Military Activities’, *Conflict and Environment Observatory*, 18 March 2021, <https://ceobs.org/how-animals-are-harmed-by-armed-conflicts-and-military-activities>. See Sarah D Cruse, ‘Military Working Dogs: Classification and Treatment in the U.S. Armed Forces’ (2015) 21 *Animal Law* 249.

¹² Jérôme de Hemptinne, ‘The Protection of Animals During Warfare’ (2017) 111 *American Journal of International Law UNBOUND* 272, 272.

¹³ Anne Peters, *Animals in International Law* (Brill 2021) 334.

¹⁴ Roscini (n 4) 36.

it is not expected that the current state of development of IHL supports the idea that animals should be protected during armed conflicts because they are sentient beings rather than because their victimhood could affect humans.¹⁵

Given the absence of regulations in IHL with the explicit aim of protecting animals in armed conflicts,¹⁶ scholars have attempted to discern general rules, the interpretation of which would allow the extension of the protective scope of IHL to animals.

If we assume that animals are incorporated within the category of property,¹⁷ several IHL rules apply to them as public or private property. The Hague Regulations provide that private or public property shall enjoy protection against attack unless such attack is necessary for military objectives.¹⁸ In addition, the Regulations also outlaw pillage in occupied territories¹⁹ but allow requisition of private property (including animals) if the military needs of the army of occupation require.²⁰

Another approach suggests that animals can be considered as subjects of law – namely combatants – and thus eligible to be protected by IHL. Nowrot submits that ‘the general inability of animal soldiers to obey the obligations under international humanitarian law autonomously does not in principle hinder their recognition as combatants and the granting of the protective rights associated with this legal status’.²¹ Nevertheless, it seems ‘appropriate and advisable from a legal policy perspective not to transfer and extend the current concept of (human) combatants ... to animal soldiers but rather create a new separate category of animal combatants under international humanitarian law’.²² However, it should be remembered that combatants are granted special privileges and protection under IHL only because they are supposed to fulfil obligations imposed on them under IHL;²³ if they do not comply with their obligations, they lose the protection granted to combatants.²⁴

¹⁵ For detailed analysis of the need to recognise protection of animals under IHL see Saba Pipia, ‘Forgotten Victims of War: Animals and the International Law of Armed Conflict’ (2022) 28 *Animal Law* 175.

¹⁶ Roscini (n 4) 36

¹⁷ David Favre, ‘Animals as Living Property’ in Linda Kalof (ed), *The Oxford Handbook of Animal Studies* (2017 online edn, 2014) 65, 66 (describing the status of animals as ‘living property’).

¹⁸ Hague Convention (IV) respecting the Laws and Customs of War on Land and its Annex: Regulations concerning the Laws and Customs of War on Land (entered into force 26 January 1910), *Martens Nouveau Recueil* (ser 3), art 53.

¹⁹ *ibid* art 47.

²⁰ *ibid* art 53; Marco Longobardo, ‘Animals in Occupied Territory’ in Peters, de Hemptinne and Kolb (n 10) 217, 220–23 (explaining that the protection offered to public and private property sometimes extends to animals in occupied territories through international law).

²¹ Karsten Nowrot, ‘Animals at War: The Status of “Animal Soldiers” under International Humanitarian Law’ (2015) 40 *Historical Social Research* 128, 142–43.

²² *ibid* 143.

²³ See Marco Sassòli, *International Humanitarian Law: Rules, Controversies, and Solutions to Problems Arising in Warfare* (Edward Elgar 2019) 248.

²⁴ Protocol Additional to the Geneva Conventions of 12 August 1949 and relating to the Protection of Victims of International Armed Conflicts (entered into force 7 December 1978) 1125 UNTS 3 (AP I), art 44(3)–(4).

Therefore, the ability to fulfil obligations in good faith is the main requirement for the granting of combatant status. Animals may not be considered combatants but they can still contribute to the conduct of hostilities. As Dinstein suggests, '[h]uman beings are not the only living species' who can be legitimate targets, as '[c]ertain types of land animals (such as cavalry horses, pack mules, camels and explosives-sniffing dogs), marine mammals trained for military uses (primarily, dolphins) or message-delivering pigeons' qualify as military objectives and may be attacked.²⁵

Another option is that animals can be considered 'objects' for the purposes of the application of the principle of distinction provided under the first Protocol additional to the Geneva Conventions (AP I),²⁶ but can animals truly be considered as *objects* for the purposes of this provision? Roscini suggests that the notion of objects is limited to inanimate objects and that animals are thus left unprotected.²⁷ This view is further supported by the Commentaries to AP I, which explicitly indicate that 'objects' are tangible and visible things.²⁸ As animals are living and movable creatures, under no circumstances should they be considered as *things* and thus incorporated within the meaning of *objects*, having a civilian or military nature.

Wildlife animals are protected under IHL norms which protect the natural environment.²⁹ IHL protects species of wild fauna 'not only directly as a component of the "natural environment", but also indirectly by preserving the ecosystems in which they live'.³⁰ Unjustified incidental damage to the environment, civilians and civilian objects, in relation to the anticipated military gain, constitutes a violation of the principle of proportionality and is punishable under international criminal law.³¹ The notion of 'environment' itself is very broad; it includes species of wild fauna and flora as well as entire ecosystems.³² Wild species are protected under environmental protection clauses because they are considered integral parts of the natural environment and biodiversity and not because they deserve protection on their own. It is primarily the purpose of conservation that prevails over the welfare of wild animals, but other

²⁵ Yoram Dinstein, *Conduct of Hostilities under the Law of International Armed Conflict* (4th edn, Cambridge University Press 2022), 121.

²⁶ AP I (n 24) art 52(2).

²⁷ Roscini (n 4) 46.

²⁸ Claude Pilloud and others, *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (International Committee of the Red Cross & Martinus Nijhoff 1987) (Commentary on AP I) art 52, para 2010.

²⁹ Peters (n 13) 362.

³⁰ Roscini (n 4) 61–62.

³¹ Rome Statute (n 5).

³² Report of the International Law Commission on the Work of its 43rd Session (29 April–19 July 1991), UN Doc A/46/10, art 26; see also Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (entered into force 21 June 1993) CETS 150, art 2, para 10 (defining the term 'environment' for the purpose of the Convention to include 'natural resources both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors; property which forms part of cultural heritage; and characteristic aspects of the landscape').

categories of animals (companions or farm animals) are certainly left outside the scope of protection.

Livestock animals are further protected as objects indispensable to the survival of the civilian population. Article 54 of AP I spells out livestock as a potential object necessary for human survival and prohibits attack, destruction, removal or rendering it useless.³³ The same article prohibits starvation as a method of warfare.³⁴ Therefore, the protection of livestock animals, as essential objects for human survival, read in conjunction with the prohibition against starvation, indicates that the objective of this rule is to protect the civilian population and not animals.

Additionally, Roscini notes that some forms of animal protection result indirectly from the application of other rules of the law relating to armed conflicts. These include (i) protection of works and installations containing dangerous forces; (ii) protection of means of medical transportation if animals are used for such purpose; (iii) provisions allowing protected persons to exercise their religious practices in societies that practise religion where animals are considered sacred; and (iv) treaties prohibiting or restricting the use of certain weapons can also provide some level of animal protection in armed conflict.³⁵

As demonstrated in this section, IHL indeed contains a set of rules that indirectly protect animals. However, IHL does not see animals as sentient beings that inherently deserve protection but considers them as part of other domains, such as property or the natural environment. Therefore, this article aims to demonstrate that as extensive as existing IHL rules may appear, there is still room for development and, in particular, development related to the incorporation of animal welfare rules into IHL, based on the premise that animals should be granted protection independently and not as part of something else.

3. Use of animals documented during Russia's invasion of Ukraine

The war in Ukraine has had several non-human victims, namely animals. Since the beginning of the invasion, many animals have suffered in multiple ways, and their suffering is still ongoing. Accurate figures for animal casualties are unknown and probably will remain unidentified once the war is over. Animal suffering is caused either by directly using or abusing them in war efforts, or indirectly as collateral damage.

The mass displacement of civilians inside Ukraine or outside its internationally recognised border is one of the major triggers for animal suffering: 'Images of refugees fleeing with their dogs and cats have appeared in the media, but many companion animals have also been left behind to cope as well as they can'.³⁶ In some instances, civilians who were displaced internally

³³ AP I (n 24) art 54(2).

³⁴ *ibid* art 54(1).

³⁵ Roscini (n 4) 56–57.

³⁶ Singer and Todorchuk (n 9).

and fled from cities because of rocket strikes found shelters in national parks or other natural areas. This massive presence of humans in natural areas disturbed wild animals, and damaged or destroyed their habitats.³⁷

Animals in captivity became one of the most vulnerable categories of victims. They found themselves trapped in a zone of active hostilities; unlike wildlife or companion animals, which can seek safe places either by themselves or through their owners, animals in captivity cannot flee from war zones because they are not alerted beforehand about the danger; they do not understand it, and they can normally not travel and settle down elsewhere. Therefore, animals in zoos and shelters are placed in imminent peril when military activities are taking place in cities.

Zoos in Kyiv and other Ukrainian cities either became targets of attack and thus were damaged or destroyed, or were completely cut off by the fighting in cities and left without sufficient food for the animals;³⁸ in some instances, they even lacked the means to end the lives of starving animals humanely.³⁹ Animal shelters in some Ukrainian cities have been attacked and animals killed,⁴⁰ while in other cases volunteers have struggled to continue to operate shelters and provide the animals with food and water.

In another incident, Russian troops were accused of burning horses alive after setting fire to a civilian stable in the occupied city of Hostomel.⁴¹ Horses find themselves in vulnerable situations throughout the entire territory of Ukraine; some organisations provide emergency aid and relocation services for them from potentially dangerous areas to the safer regions of Ukraine or even abroad.⁴²

The largest number of animals dying as a result of the war are likely to have been in factory farms. One such episode of the suffering of farm animals was detected in the Agromel dairy farm near Kharkiv, where Russian troops bombed the area, causing massive injury and death on the farm, which had over 3,000 cows.⁴³ In another incident, Russian troops cut off animal feed supplies, leading to the death of three million chickens in the occupied Kherson Oblast.⁴⁴

³⁷ Presentation by Krystina Gavrysh, 'Enhancing Environmental Protection in Armed Conflict', online event organised by the Italian Society of International Law, 19 September 2022 (on file with the author).

³⁸ Tsavo Trust, 'An Update on War-torn Ukraine's Zoo Animals, and Does the War Throw New Light on Zoos' Role in Conservation?', <https://tsavotrust.org/an-update-on-war-torn-ukraines-zoo-animals-and-does-the-war-throw-new-light-on-zoos-role-in-conservation>.

³⁹ 'Смерть від голоду та холоду: зоопарк на Київщині просить про 'зелений коридор' для тварин', УНІАН, 15 March 2022, <https://www.unian.ua/society/smert-vid-golodu-ta-holodu-zoopark-na-kijivshchini-prosit-pro-zeleniy-koridor-dlya-tvarin-novini-ukrajini-11744017.html>.

⁴⁰ 'Окупанти обстріляли в Харкові притулок для тварин: загинули 5 собак', 24 Канал, 8 March 2022, https://24tv.ua/okupanti-obstrilyali-harkovi-pritulok-dlya-tvarin-zaginuli-5_n1895809.

⁴¹ 'Russian Troops "Burn 30 Horses Alive" in Stable near Kyiv, Ukraine Says', LBC, 22 March 2022, <https://www.lbc.co.uk/news/russian-troops-burn-30-horses-alive-civilian-stable-ukraine>.

⁴² For more information see official website of the Ukrainian Equestrian Charity Foundation, <https://helpukrainehorses.eu>.

⁴³ For details see https://twitter.com/opencages_ua/status/1509515903150563336.

⁴⁴ Eddy Wax, 'The Starvation of a Nation: Putin Uses Hunger as a Weapon in Ukraine', *Politico*, 1 April 2022, <https://www.politico.eu/article/the-starvation-of-a-nation-how-putin-is-using-hunger-as-a-weapon-in-ukraine>.

On other occasions, a dog was stolen by Russian forces from an Azovstal prisoner of war and given as a trophy to a Chechen leader, Kadyrov;⁴⁵ another dog, abandoned by the Russians during a retreat, was adopted by Ukrainian soldiers, enrolled in combat training and taught to sniff out mines.⁴⁶ Another mine-sniffing dog, named Patron, also made it into the headlines after being awarded a medal for service to his country by the president of Ukraine.⁴⁷

Additionally, some sources reported that people started killing their animals (such as cats and dogs) for food in the city of Mariupol,⁴⁸ which was on the verge of famine following its siege by Russian troops before they fully captured the city. Other sources reveal that Russian troops were eating dogs because they were 'sick' of ration packs.⁴⁹

Moreover, since the start of the Russian aggression in Ukraine, scientists are detecting that dolphins in the Black Sea are dying at an alarming rate, because Russian warships and submarines are creating constant noise pollution that is proving deadly to marine mammals.⁵⁰

The instances described above do not reflect fully the reality on the battlefields and in occupied territories of Ukraine, largely because of a lack of sufficient information and officially verified statistical figures. Therefore, these examples are mentioned to demonstrate the scale of casualties and the suffering that animals experience as the war is being waged. Furthermore, this is not an exhaustive list of instances where animals have been used or abused in furtherance of war efforts by parties to the conflict or by civilians. There might be other occasions on which animals have been exposed to hardships caused by Russia's invasion of Ukraine.

It should be also noted that not all of the uses of animals described above are illegal. Some are lawful (such as using dogs for sniffing out mines); some might be unlawful under international law (such as causing massive death of dolphin populations, targeting zoos, shelters and farms, causing starvation),

⁴⁵ 'Russian Occupiers Stole a Dog from the Captured Azovstal Defender and Presented It to Kadyrov', *Hromadske Radio*, 16 June 2022, <https://hromadske.radio/en/news/2022/06/16/russian-occupiers-stole-a-dog-from-the-captured-azovstal-defender-and-presented-it-to-kadyrov>.

⁴⁶ Brooke Kato, 'Dog Deserts Russian Special Forces To Fight for Ukraine on the Front Line', *New York Post*, 1 June 2022, <https://nypost.com/2022/06/01/dog-deserts-russian-forces-to-fight-for-ukraine-on-front-line>.

⁴⁷ 'Patron the Mine-Sniffing Dog Awarded Medal by President Zelensky', *BBC News*, 9 May 2022, <https://www.bbc.com/news/world-europe-61376816>.

⁴⁸ Seoirse Mulgrew, 'Ukrainians Forced To "Drink Water from Radiators and Kill Pets for Food" in Mariupol', *Irish Independent*, 21 March 2022, <https://www.independent.ie/news/ukrainians-forced-to-drink-water-from-radiators-and-kill-pets-for-food-in-mariupol-41472361.html>.

⁴⁹ David Millward, 'Audio Reveals Russian Troops Are Eating Dogs because They Are "Sick" of Ration Packs', *The Telegraph*, 31 March 2022, <https://www.telegraph.co.uk/world-news/2022/03/31/audio-recording-reveals-russian-troops-eating-dogs-ration-packs>.

⁵⁰ Jake Thomas, 'Dolphins in Black Sea Dying by the Thousands during Russia-Ukraine War', *Newsweek*, 20 July 2022, <https://www.newsweek.com/dolphins-black-sea-dying-thousands-during-russia-ukraine-war-1726551>.

while others may be an offence under the domestic law of Ukraine⁵¹ (such as abandoning companion animals and hunting down pets).

4. Application of IHL rules to acts against animals in Ukraine

4.1. Animals in zoos

This subsection examines whether animals in zoos can be classified as components of the natural environment and thus enjoy the protection granted to the environment under IHL, or whether zoo animals fall within the different category.

Animals in zoos can be particularly vulnerable during hostilities.⁵² For example, an episode of the suffering of zoo animals was documented during the Second World War. This was ‘Operation Retribution’, an air raid over Belgrade in 1941, led by the German Axis powers. Among other military objectives, the raid also targeted the city’s zoo, killed several animals, and forced countless others to flee, leaving them unaccounted for.⁵³ Since then, zoo animals have been affected by hostilities in occupied territories during various armed conflicts.⁵⁴ Russia’s invasion of Ukraine is not an exception in this regard and zoos in Ukraine are also under threat. The Feldman Ecopark zoo in Kharkiv was damaged amid fighting and there are reports that animals at Park XII Months zoo, north of Kyiv, have started to die from starvation and cold. ‘Animals in zoos already suffer psychological stress from captivity; the disruption and chaos of war only exacerbate it’.⁵⁵

As mentioned above, individual animals cannot be classified as ‘objects’ for the purpose of IHL;⁵⁶ however, the zoo itself, including its animals and infrastructure related to their care, can be considered a civilian object,⁵⁷ unless it is used for military purposes and thus meets the criteria for military objective set out in AP I.⁵⁸ Therefore, launching an attack against a zoo may amount to a violation of the principle of distinction,⁵⁹ in that a zoo, as an object, has an inherently civilian nature before it is transformed into a military objective.

⁵¹ See, eg, Law of Ukraine on the Protection of Animals from Cruelty, No 3447 – IV, 21 February 2006.

⁵² John M Kinder, ‘Zoo Animals and Modern War: Captive Casualties, Patriotic Citizens, and Good Soldiers’ in Ryan Hediger (ed), *Animals and War: Studies of Europe and North America* (Brill 2013) 45, 59.

⁵³ ‘Operation Retribution 1941’, ARTOUR, <https://ar-tour.com/guides/belgrade-weekend-party/operation-retribution-1941.aspx>.

⁵⁴ Longobardo (n 20).

⁵⁵ Kenny Torella, ‘Animal Welfare in Wartime’, Vox, 26 March 2022, <https://www.vox.com/22996601/animal-welfare-ukraine-wartime-international-humanitarian-law>.

⁵⁶ *ibid.*

⁵⁷ Under IHL ‘civilian object’ is defined by means of a negative method, which means that everything that is not a military object is a civilian object; see Commentary on AP I (n 28) art 52 para 2012.

⁵⁸ AP I (n 24) art 52(2).

⁵⁹ The principle of distinction is a basic rule of IHL, which provides that ‘[i]n order to ensure respect for and protection of the civilian population and civilian objects, the Parties to the conflict

Individual animals held in zoos cannot benefit from the status of civilian persons as this status is granted exclusively to humans. However, zoo animals can fall within the definition of 'enemy property'.⁶⁰ Based on the mode of ownership of the zoo (whether it is owned by the state or privately owned) animals in those zoos will similarly qualify as public or private property, and their killing or the infliction of other kinds of harm to them will amount to a crime against property.

Another issue is whether animals in Ukrainian zoos qualify as wildlife fauna and thus enjoy the protection granted to the natural environment under IHL. Under the general definition, wildlife includes undomesticated non-human species,⁶¹ whereas animals kept in captivity in zoos are seen as tamed and taken out of the natural environment. The zoo setting is not a natural habitat for them; they are artificially introduced into zoos; they therefore do not form a component of biodiversity and should not be considered part of the natural environment. They can benefit only from the protection granted to private or public property under IHL.

Some zoos might run conservation programmes, which include raising and preparing endangered species of wild fauna to be introduced into the natural environment later, thereby contributing to the preservation of certain populations. In this situation, although animals are kept in captivity and are not introduced to natural habitats, their function is not to be exhibited in a zoo, but rather they are intended to live in the natural environment and become part of biodiversity. An attack against such a zoo, which runs conservation programmes and keeps endangered species on its premises, might constitute widespread, long-term and severe damage to the environment, depending on the status of the species in the conservation programme – whether, without that species, a particular class of the animal population will be on the verge of extinction and whether entire ecosystems, intended for their future habitats, will disappear.⁶²

It should be noted that zoos in occupied territory fall within the application of rules governing the treatment of public and private property in occupied territory. Although private property cannot be confiscated, and neither private nor public property can be destroyed, the law of occupation embodies rules on the ways in which an occupying power can use property located in the occupied territory.⁶³ As explained above, zoos outside the occupied territory

shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives': AP I (n 24) art 48.

⁶⁰ Roscini suggests that '[i]f "property" is interpreted according to its ordinary meaning, then it would at best include farm and zoo animals as well as pets and other domestic animals, but not wild, stray or unowned animals': Marco Roscini, 'Animals as Property and as Objects' in Peters, de Hemptinne and Kolb (n 10) 73, 75.

⁶¹ *Merriam-Webster Dictionary*.

⁶² For qualification of endangered species as part of the natural environment see Ayse-Martina Bohringer and Thilo Maruhn, 'Animals as Endangered Species' in Peters, de Hemptinne and Kolb (n 10) 129, 140-42.

⁶³ For detailed analysis see Longobardo (n 20) 220-22.

are protected as civilian objects, regulated by the rules of conduct of hostilities.

To conclude, zoos in Ukraine benefit from protection against attack as civilian objects, unless used for military purposes. Furthermore, zoo animals, the primary function of which is to be exhibited for humans, are not components of the natural environment, but they enjoy protection as public or private property depending on who owns the specific zoo. Finally, Ukrainian zoos that run conservation programmes and keep endangered species for this purpose can additionally enjoy environmental protection under IHL, based on the significance of the particular animals for biodiversity and the ecosystems in which they are intended to be introduced.

4.2. Dolphins of the Black Sea

Animals suffer from the destruction of their habitat and severe pollution caused by armed conflict.⁶⁴ Even in circumstances in which animals are not a military target of an attack, they still find themselves in the most helpless and frightening situations, eventually resulting in a large decrease in their populations. The data on the impact of war on animals over the past century shows that the figure for animal fatalities was no less than that for humans.⁶⁵

The conflict in Ukraine has not just caused loss of human life; military activity has also had a profound impact on the Black Sea dolphin population. Before the war, the population of cetaceans found in the Black Sea was at least 253,000 dolphins.⁶⁶ However, thousands of dolphins in the Black Sea have died every month since Russia launched its invasion against Ukraine. According to the latest estimates, a minimum of 5,000 dolphins perished in the sea between March and July 2022.⁶⁷ Some sources even suggest that the death toll could amount to tens of thousands.⁶⁸

Ukrainian biologists have warned that dolphins in the Black Sea are dying at an alarming rate as a result of deadly noise pollution caused by Russian warships and submarines.⁶⁹ However, other researchers, namely from Turkey, consider that a thorough study is required to ascertain whether the war is the real

⁶⁴ Peters (n 13) 335–36.

⁶⁵ Cox and Zee (n 11).

⁶⁶ 'How Many Dolphins Live in the Black Sea? Results of the Research', *The Odessa Journal*, 13 May 2021, <https://odessa-journal.com/public/how-many-dolphins-live-in-the-black-sea-results-of-the-research#:~:text=And%20here%20are%20the%20results,Sea%20%2D%20at%20least%20253%20thousand>.

⁶⁷ Thomas (n 50).

⁶⁸ Stuart Greer, 'Tens of Thousands of Dead Dolphins among Environmental Casualties of Ukraine War', *RadioFreeEurope / RadioLiberty*, 3 December 2022, <https://www.rferl.org/a/ukraine-dolphins-war-black-sea-russia/32159530.html>.

⁶⁹ 'Thousands of Dolphins Die in Black Sea, Collateral Victims of War in Ukraine', *RFI*, 25 July 2022, <https://www.rfi.fr/en/europe/20220725-thousands-of-dolphins-die-in-black-sea-collateral-victims-of-war-in-ukraine>.

reason for the increase in dolphin fatalities in the Black Sea.⁷⁰ A recently published study indicates a dramatic increase in cetacean mortality as a result of war operations in the Black Sea,⁷¹ showing that tens of thousands of cetaceans have died in the area and, as a result, the authors have warned of the high risk that these animals could be wiped out in the region.⁷²

Because dolphins and other marine species are wildlife fauna, they should be considered as a component of the natural environment, and crimes against them should be analysed in the context of environmental damage.

4.2.1. *Environmental damage under IHL*

AP I prohibits the employment of methods or means of warfare that are intended or may be expected to cause widespread, long-term and severe damage to the natural environment; it additionally imposes an obligation to take proper care in warfare to prevent such damage.⁷³ Moreover, the Rome Statute expanded the scope of the principle of proportionality⁷⁴ by recognising as war crimes clearly excessive attacks against the natural environment.⁷⁵ Customary IHL also upholds the notion that the general principles on restraints on the conduct of hostilities apply to the natural environment in international armed conflicts as well as to those of a non-international nature.⁷⁶ Furthermore, in discussing the legality of the use of nuclear weapons, the International Court of Justice (ICJ) also acknowledged 'environmental factors that are properly to be taken into account in the context of the implementation of the principles and rules of the law applicable in armed conflict'.⁷⁷ Recently, the International Law Commission also adopted a set of draft principles on the protection of the environment in relation to armed conflicts.⁷⁸

While Article 55(1) of AP I includes reference to the health and survival of the population, Article 35(3) lacks such reference. However, this does not imply that the environment itself is not protected by the provisions, but rather that

⁷⁰ Mark Santora, 'Dolphins Dying in Black Sea, and May Be Casualties of War, Scientists Say', *The New York Times*, 2 June 2022, <https://www.nytimes.com/2022/06/02/world/europe/dolphins-dying-ukraine-war.html>.

⁷¹ Ewa Węgrzyn and others, 'The Use of Social Media in Assessing the Impact of War on Cetaceans' (2023) 19(4) *Biology Letters* 2.

⁷² Aristos Georgiou, 'Russia-Ukraine War Pushing Dolphins to Extinction in Black Sea', *Newsweek*, 5 April 2023, <https://www.newsweek.com/dolphins-black-sea-face-extinction-russia-ukraine-war-1792786>.

⁷³ AP I (n 24) arts 35(3), 55(1).

⁷⁴ *ibid* art 51(5) (regarding the principle of proportionality).

⁷⁵ Rome Statute (n 5) art 8(2)(b)(iv).

⁷⁶ Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law, Vol I: Rules* (International Committee of the Red Cross and Cambridge University Press 2005, revised 2009) rules 43–45.

⁷⁷ ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion [1996] ICJ Rep 226, [33].

⁷⁸ See generally International Law Commission, *Principles on Protection of the Environment in Relation to Armed Conflicts*, Report on the Work of the Seventy-First Session (10 December 2019), UN Doc A/74/10, 209–96.

Article 55(1) reinforces Article 35(3).⁷⁹ Moreover, the term ‘population’ is used without the adjective ‘civilian’ as in many other provisions of AP I, which indicates that this term was inserted deliberately to cover not only humans but all populations without distinction.⁸⁰ Commentaries on AP I explicitly indicate that Article 35 provides for the protection ‘not merely of ... the population and the combatants of the countries at war ...’, but also [t]he natural environment itself.⁸¹ The prohibition continues to apply even in the absence of any direct threat to the population of an enemy state because it is the natural environment itself that is protected, and the environment is deemed common property subject to preservation for everyone’s use.⁸² Thus, the concept of the natural environment should be understood in its broadest sense: ‘[i]t does not consist merely of the objects indispensable for [human] survival ... but also includes forests and other vegetation ... as well as fauna, flora, and other biological or climatic elements’.⁸³ Armed conflicts disrupt the lives not only of humans but also of all other living organisms.⁸⁴ Therefore, it is obvious that the environment should be protected during armed conflicts not necessarily because of its significance for humans but rather for its importance in and of itself.

One might suggest that because the decline of dolphin populations in the Black Sea does not threaten human survival – as, for example, damage to a nuclear power plant – crimes against dolphins fall outside the scope of IHL. This approach is supported by the dominant opinion that IHL protects only the human environment, and nature is granted protection only when it is linked to human survival. This framework of thinking does indeed leave dolphins of the Black Sea out of the IHL purview because it is obvious that the decline in dolphin populations has no direct impact on human suffering. This approach might be proved wrong because, as explained above, the environment is protected under IHL for its intrinsic value and not only for its importance to human populations.

The next step in analysing crimes against dolphins is to assess whether damage to their populations amounts to widespread, long-term and severe damage, as required by AP I.⁸⁵ For the purpose of IHL, the term ‘widespread’ encompasses an area of the scale of several hundred square kilometres; ‘long-term’ (for a period of decades); and ‘severe’ (involving serious or significant disruption or harm to human life, natural economic resources or other assets).⁸⁶ Some scholars have commented that the scope of the prohibition is very narrow as a result of both the cumulative character of the three conditions and of their interpretation, which effectively sets the threshold very

⁷⁹ Dieter Fleck (ed), *The Handbook of International Humanitarian Law* (4th edn, Oxford University Press 2021) 215–16.

⁸⁰ Commentary on AP I (n 28) art 55 para 2134.

⁸¹ *ibid* art 35 para 1441.

⁸² *ibid* art 35 para 1462.

⁸³ *ibid* art 55 para 2126.

⁸⁴ *ibid* art 35 para 1462.

⁸⁵ AP I (n 24) art 55.

⁸⁶ Commentary on AP I (n 28) art 35 para 1452 and fn 117.

high; there is also some ambiguity, and it seems next to impossible that the threshold could be reached by conventional warfare.⁸⁷ Furthermore, this threshold has never been reached during any past armed conflicts that have brought serious damage to nature and degradation of the environment.⁸⁸

While assessing whether the damage is widespread, long-term and severe, it should be noted that the dolphins also act as sanitarians of the sea by eating sick fish; if they continue to disappear, life in the sea will degrade.⁸⁹ The impact, therefore, will surpass just the dolphin populations and will extend to the entire marine environment of the Black Sea. Moreover, factors such as the ratio of killed dolphins, seasonal regeneration rate, and the capacity to restore a natural balance in the Black Sea should also be taken into account in considering whether the impact on dolphin populations will amount to widespread, long-term and severe damage to the environment.

Based on the above considerations, dolphins of the Black Sea indeed form an integral part of the natural environment, which is protected under IHL. The lawfulness of actions that allegedly caused damage to their population should be examined through the three-part test provided under AP I.

4.2.2. *War crimes under international criminal law*

IHL provides obligations for parties to international armed conflict to protect the natural environment. Violation of these obligations invokes the international responsibility of states. However, wrongdoings against the environment committed during an armed conflict can also give rise to individual criminal responsibility of perpetrators under international or domestic criminal law. Criminal prosecution of individuals does not affect state responsibility under international law for violating IHL norms related to protection of the environment. These two types of responsibility (state and individual) are not mutually exclusive and can be invoked in parallel.

The Rome Statute stipulates that a war crime is committed if, during an international armed conflict, there is an intentional launch of an attack in the knowledge that such attack will cause widespread, long-term and severe damage to the natural environment, which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.⁹⁰ In other words, a disproportionate attack against the environment is prohibited during international armed conflict.

In international criminal law, protection from environmental harm is mediated largely through core crimes. Crimes against the environment are

⁸⁷ Michael Bothe and others, 'International Law Protecting the Environment during Armed Conflict: Gaps and Opportunities' (2010) 92(879) *International Review of the Red Cross* 569, 575–76.

⁸⁸ Anne Dienelt, *Armed Conflicts and the Environment: Complementing the Laws of Armed Conflict with Human Rights Law and International Environmental Law* (Springer 2022) 45–46.

⁸⁹ Natalia Datskevych, 'More than 5,000 Dolphins Die in Black Sea as a Result of Russia's War', *The Kyiv Independent*, 20 July 2022, <https://kyivindependent.com/hot-topic/more-than-5-000-dolphins-die-in-black-sea-as-a-result-of-russias-war>.

⁹⁰ Rome Statute (n 5) art 8(2)(b)(iv).

not recognised as a separate category of crime,⁹¹ but the inclusion of environmental damage in the principle of proportionality largely was a manifestation of the idea that the law not only protects human beings but also the world around them, and thus their well-being.⁹² Therefore, claims to prosecute acts against Black Sea dolphins as a war crime could be reasonable.

However, despite the fact that incidents surrounding the death of the dolphin population fall within the meaning of the principle of proportionality as provided in the Rome Statute, prosecuting these acts as a war crime could become an issue for several reasons.

Firstly, the launch of an attack by a perpetrator is an essential element for activating the proportionality rule.⁹³ Therefore, it should be established whether an attack actually took place. Under IHL, 'attack' means acts of violence against the adversary, whether by way of offence or in defence.⁹⁴ This refers to the use of armed force to carry out a military operation at the beginning or during the course of the armed conflict.⁹⁵ It is obvious that the term 'acts of violence' denotes physical force, and covers the use of weapons. Deaths of dolphins allegedly are being caused by the interception of sonar signals, by various activities of the Russian navy, which do not necessarily include an armed attack against dolphins. Under the ordinary meaning of 'attack', mere navigation of warships in the Black Sea would not amount to 'attack', which is a prerequisite to discussing the legality of such an attack in the light of the principle of proportionality. However, for the purpose of the Rome Statute, 'attack' is not limited to kinetic means and methods of combat.⁹⁶ For the authors of the Commentaries on the Rome Statute, what defines an attack is not the violence of the means but the violence of the effects or consequences, even if indirect.⁹⁷ This wider interpretation leaves room for considering the interception of acoustic signals in the water to be an 'attack' because it results in violent consequences for dolphins.

The application of Article 8(2)(b)(iv) involves an assessment of the anticipated environmental damage and the anticipated military advantage. It must then be determined whether the anticipated environmental harm was 'clearly excessive' with regard to the anticipated military advantage. The Rome Statute adopts a higher standard, limiting the criminal prohibition only to those cases that are 'clearly' excessive.⁹⁸ In other words, even if it is found that damage to the natural environment meets the threshold of

⁹¹ Carsten Stahn, *A Critical Introduction to International Criminal Law* (Cambridge University Press 2019) 109.

⁹² Otto Triffterer and Kai Ambos (eds), *The Rome Statute of the International Criminal Court: A Commentary* (3rd edn, CH Beck 2016) 9.

⁹³ Elements of Crimes, ICC Assembly of States Parties to the Rome Statute of the International Criminal Court, 1st Session, 3–10 September 2002, ICC-ASP/1/3, art 8(2)(b)(iv), element 1, 9.

⁹⁴ AP I (n 24) art 49(1).

⁹⁵ AP I (n 24) art 49; Commentary on AP I (n 28) art 49 para 1882.

⁹⁶ Triffterer and Ambos (n 92) 355.

⁹⁷ *ibid* 356.

⁹⁸ William A Schabas, *The International Criminal Court: A Commentary on the Rome Statute* (2nd edn, Oxford University Press 2017) 266.

widespread, long-term and severe damage, such an act would not be classed as a war crime if the additional element of 'clearly excessive' is not met.⁹⁹ Because of this high standard, some authors even argue that this provision will become a 'virtual nullity' as it is nearly impossible to meet this standard in all but the most horrendous circumstances.¹⁰⁰ Loss of dolphin populations in the Black Sea, even if found to constitute widespread, long-term and severe damage to the natural environment, should be assessed in the light of the achieved or anticipated military advantage. Only if the harm to dolphins was clearly excessive in relation to such military advantage would acts resulting in the decline of dolphin populations amount to war crimes.

Lastly, in order for certain acts to qualify as war crimes, it is necessary that the alleged acts were committed in the context of armed conflict and were associated with the conflict.¹⁰¹ In other words, there must be a link or *nexus* between the acts of the accused and the armed conflict, and the 'armed conflict must play a substantial role in the perpetrator's decision ... to commit the crime or in the manner in which the conduct was ultimately committed'.¹⁰² As mentioned above, scientists are not yet clear about the reason for the rapid loss of dolphins in the Black Sea; therefore, the *nexus* requirement might be challenged.

Based on the above considerations, although the ICC has jurisdiction to prosecute war crimes committed in Ukraine,¹⁰³ it is less likely that the investigation will focus on episodes surrounding the loss of the dolphin population in the Black Sea. In theory, acts that result in harm to dolphins can be prosecuted as war crimes but, as demonstrated above, there are numerous practical challenges, which make it nearly impossible for such alleged acts to qualify as war crimes within the meaning of Article 8(2)(b)(iv) of the Rome Statute.

4.2.3. *Crime of ecocide under international and national jurisdictions*

Another possible avenue to prosecute acts against the Black Sea dolphin population is provided under the crime of ecocide. Early discussions of ecocide as an international crime started immediately after environmental damage was inflicted on Vietnam, Cambodia and Laos through the use of chemical warfare as part of the US campaign in that region.¹⁰⁴ The use of Agent Orange during the Vietnam War devastated the local human population and wildlife. Between 1961 and 1971, US military aircraft sprayed approximately 20 million gallons of various chemical herbicides on the Vietnamese countryside as part of Operation Ranch Hand, a joint US–South Vietnam mission. Covering an area

⁹⁹ Beatrice L. Hamilton, 'Legal Challenges to the Inclusion of a Crime of Ecocide in the Rome Statute of the International Criminal Court' in Regina M. Paulose (ed), *Green Crimes and International Criminal Law* (Vernon Press 2021) 107, 119.

¹⁰⁰ Triffterer and Ambos (n 92) 379.

¹⁰¹ Elements of Crimes (n 93) art 8, Introduction, 9.

¹⁰² Schabas (n 98) 235.

¹⁰³ See 'Statement of ICC Prosecutor, Karim A.A. Khan QC, on the Situation in Ukraine', 28 February 2022 ('I have decided to proceed with opening an investigation').

¹⁰⁴ Martin Crook and Damien Short, 'Marx, Lemkin and the Genocide–Ecocide Nexus' (2014) 18(3) *The International Journal of Human Rights* 298, 306.

of about 5 million acres, the programme sought to defoliate the lush indigenous greenery and make the jungle transparent to US and South Vietnamese military forces. This military campaign in Vietnam was labelled 'ecocide' at the UN Conference on the Human Environment (Stockholm Conference).¹⁰⁵

However, it took a further 50 years or so since then to adopt a legal definition of the crime of ecocide. In June 2021, the Panel of Experts convened by the Stop Ecocide Foundation issued its final document defining the crime of ecocide (core text with commentaries) and suggesting amendments to the Statute of the International Criminal Court (Rome Statute) to incorporate ecocide as separate crime under the Rome Statute.¹⁰⁶

An earlier attempt to criminalise environmental crime included the International Law Commission's Draft Code of Crimes Against the Peace and Security of Mankind, which includes environmental crime as one such crime.¹⁰⁷

Despite the aforementioned attempts to criminalise ecocide globally, the term 'ecocide' has not developed its jurisprudence in international conventions and currently there is no international law that supports the criminalisation of ecocide.¹⁰⁸ Consequently, even if alleged acts against dolphin populations in the Black Sea meet all material elements of ecocide, they still cannot be prosecuted as ecocide under international law, simply because the current state of the law does not recognise it as an international crime.

In the absence of the international criminalisation of ecocide, prosecution under domestic jurisdictions gains momentum. Indeed, Ukraine has criminalised ecocide in its penal legislation.¹⁰⁹ The Ministry of Environment of Ukraine registered hundreds of cases of environmental crime, including various episodes of alleged ecocide,¹¹⁰ and the Office of the Prosecutor General of Ukraine has many cases of environmental damage or destruction undergoing investigation. However, most of these cases refer to nuclear terrorism and the Russian capture of Ukraine's large power plants as a potential threat to the natural environment and ecosystems in the country and beyond.¹¹¹

Although the prosecution files are not publicly accessible, and information is scarce on whether alleged crimes against dolphins are under investigation as

¹⁰⁵ Tord Bjork, *The Emergence of Popular Participation in World Politics: United Nations Conference on Human Environment 1972* (Department of Political Science, University of Stockholm 1996) 20.

¹⁰⁶ Stop Ecocide Foundation (n 7).

¹⁰⁷ Report of the International Law Commission, Draft Code of Crimes Against the Peace and Security of Mankind (December 1991), UN Doc A/46/10, 250, art 26 (stating that '[a]n individual who willfully causes or orders the causing of widespread, long-term and severe damage to the natural environment shall, on conviction thereof, be sentenced [to ...]').

¹⁰⁸ Hamilton (n 99) 133.

¹⁰⁹ Ukraine Criminal Code (2001), art 441.

¹¹⁰ 'Ecocide as an Element of Russian War against Ukraine', *Ukraine Crisis Media Center*, 30 May 2022, <https://uacrisis.org/en/ukraine-in-flames-80>.

¹¹¹ Rachel Killeen, 'Legal Accountability for Environmental Destruction in Ukraine', *Conflict and Environment Observatory*, 7 March 2022, <https://ceobs.org/legal-accountability-for-environmental-destruction-in-ukraine>; Mark Kersten, 'The Forgotten Victim of War: The Natural Environment in Ukraine', *Justice in Conflicts*, 2 May 2022, <https://justiceinconflict.org/2022/05/02/the-forgotten-victim-of-war-the-natural-environment-in-ukraine>.

environmental crimes, the possibility of prosecuting these acts under domestic law on ecocide is worth examination.

‘Mass destruction of flora and fauna’, inter alia, constitute acts that amount to the crime of ecocide under the Ukraine Criminal Code.¹¹² Mass destruction should be interpreted as the ‘complete annihilation of ... fauna of a certain region of the Earth or a partial destruction, which extends to the large multitude of ... animals,¹¹³ which results in cessation of the functioning of specific species, group of species or forms of communities of animals as a consequence of any human activities’.¹¹⁴

This definition is much wider than that of environmental crimes found in international law. It provides a useful opportunity for Ukrainian prosecutors to classify acts against Black Sea dolphins as a crime of ecocide. Firstly, the Criminal Code of Ukraine does not set the requirement of ‘attack’ but considers any human activities as an instigating factor for the crime of ecocide. Nor does it establish a threshold of ‘widespread, long-term and severe’ damage, but focuses only on the scale of destruction (total or partial).

While making findings on whether acts of Russian warships amount to ecocide under the national law of Ukraine goes beyond the scope of this article, it is worth mentioning that the chances of prosecuting alleged crimes against the Black Sea dolphins under international law are near to zero, while the domestic jurisdiction of Ukraine does indeed seem to open up the possibility to proceed with the prosecution of these acts as alleged crimes of ecocide.

4.3. Hunting down pets and birds

The historical record documents some unusual precedents of animal abuse during armed conflicts, an example of which was during the siege of Leningrad from 1941 to 1944,¹¹⁵ when hundreds of thousands of people starved to death and the notion of animal rights was merely a fantasy. An article published in 2020 by Saint Petersburg University¹¹⁶ shows that starvation frequently forced people to engage in the unusual activity of pet hunting.¹¹⁷ Eating pets became habitual, and people first turned to cats and dogs, then pigeons.¹¹⁸ Eating animals could be lifesaving and some people indeed avoided

¹¹² Ukraine Criminal Code (2001), art 441.

¹¹³ Andrei Boyko and others (eds), *Commentaries to the Criminal Code of Ukraine* (2009) commentary to art 441.

¹¹⁴ Yurii Karmazin and others (eds), *Commentaries to the Criminal Code of Ukraine* (2001) commentary to art 441.

¹¹⁵ ‘Siege of Leningrad’, *Encyclopedia Britannica*, 1 September 2021, <https://www.britannica.com/event/Siege-of-Leningrad> (‘Siege of Leningrad, [also called 900-day siege,] prolonged siege (September 8, 1941–January 27, 1944) of the city of Leningrad (St. Petersburg) in the Soviet Union by German and Finnish armed forces during World War II. The siege actually lasted 872 days’).

¹¹⁶ Piankevich, Plenkov and Sokhor (n 8).

¹¹⁷ *ibid* 158.

¹¹⁸ *ibid* 162.

starvation and death by depriving animals of their lives.¹¹⁹ Certainly, starvation may make people very assertive and force them to break legal, conventional, moral and ethical rules concerning animals. This pattern may be evident especially during siege combat operations when starvation is used as a method of warfare;¹²⁰ civilians and combatants alike in the besieged territory have a shortage of food, so they resort to eating pets or hunting down wildlife animals in order to survive.¹²¹

It should be noted that, unlike peacetime, armed conflict is an emergency. Therefore, the exigencies of war may require parties to the conflict to divert from the legal, ethical or moral norms that would normally be applied in peacetime. Perhaps the most apparent and simple example of this emergency is that rules of war permit the killing of a person under certain conditions;¹²² this might appear to be very cruel and immoral during peacetime but it is a circumstance of war. Unfortunately, wars always bring casualties and damage, but the objective of IHL is to limit, to the maximum extent, injuries and harm by offering the best possible protection to individuals while balancing between the principles of humanity and military necessity.¹²³

The principles of humanity and military necessity are in the spotlight of IHL, and any attempt to transpose animal welfare norms into IHL should go through the limitations derived from the application of these principles. That said, animal welfare norms should be upheld unless the application of these norms has detrimental effects on the welfare of humans or the military needs of the belligerent. In other words, the interests of the human population and the military necessity of armies prevail over animal protection objectives. Necessities of war may indeed justify a departure from the applicable rule.¹²⁴ This is not something new to IHL – as mentioned above, human welfare and military demands stand at the centre of the legal framework applicable during armed conflict.¹²⁵ Therefore, everything else can be protected after the rights and interests of humans and the armed forces are secured. The killing of animals for legitimate purposes is allowed and belligerents may do so where required by imperative military necessity.¹²⁶

This approach will apply to hunting wildlife or pets; in peacetime, hunting down wildlife fauna or companion animals or birds is prohibited, but if proven that this is necessary to prevent famine and thus spare the population from the food crisis, the laws of war would allow such derogation.

¹¹⁹ *ibid* 173.

¹²⁰ AP I (n 24) art 54(1) (prohibiting starvation of civilians as a method of warfare); Rome Statute (n 5) art 8(2)(b)(xxv) (prohibiting starvation of civilians as being a war crime).

¹²¹ Piankevich, Plenkov and Sokhor (n 8) 161, 165.

¹²² Nils Melzer, *Interpretive Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law* (International Committee of the Red Cross 2009) 78.

¹²³ Sassòli (n 23) 435.

¹²⁴ Andrew Clapham, *War* (Oxford University Press 2021) 306.

¹²⁵ Dinstein (n 25) 9–12.

¹²⁶ Anne Peters and Jérôme de Hemptinne, 'Animals in War: At the Vanishing Point of International Humanitarian Law' (2022) 104(919) *International Review of the Red Cross* 1285, 1298.

Furthermore, eating pets or pigeons is not a violation of IHL per se, but causing starvation by besieging a city is indeed prohibited by IHL. However, hunting down pets or wildlife animals can be an offence under domestic criminal law. The life-saving practice of eating pets should be seen not as a deliberate crime against animals, but rather as a last choice alternative to the looming starvation caused by the party to the conflict. Therefore, when it comes to the invocation of responsibility, whether under national or international law, the belligerent who used starvation¹²⁷ as a method of warfare is the one who should be liable not only for crimes against civilians but also against the animals that became victims of the circumstances created by that belligerent.

Translating the above principles into the episodes of eating pets in Ukraine, it can be concluded that civilians and combatants who resort to pet-eating practices as a result of food shortages do not violate IHL. However, the military commanders who created the circumstances that left no other choice but to eat pets for survival should be responsible for both – causing starvation, and also forcing people to kill and eat pets to save their lives.

5. Conclusion

IHL has always focused primarily on the protection of persons. It does not provide for specific rules to protect animals as such in times of armed conflict. They neither fall within the definition of a 'civilian person' under Article 50(1) of AP I nor within the definition of 'civilian object' under Article 52(2) of the same Protocol, which appears to encompass only inanimate things. Nor do animals qualify as 'combatants'; therefore, they do not enjoy the general protection provided under AP I. This legal gap is only partially filled by provisions that protect animals that might be indispensable for the survival of the civilian population, and provisions which prohibit attacks if the damage to the fauna is widespread, long-term and severe; in both cases, however, the protection of animals would be linked to that of humanitarian and environmental concerns.¹²⁸ Even the Martens Clause, which was introduced into IHL with the primary objective of filling any gaps in the future, appears to be inapplicable to animals (unless interpreted progressively)¹²⁹ because its wording refers explicitly to the protection of civilians and combatants.

However, this silence in IHL should not be seen as a preventing factor to providing protection for animals in times of armed conflict. As the Russian aggression against Ukraine has proved, animals are indeed victims of war, but there might be several avenues within the IHL framework that could grant them a certain level of protection based on their status (such as farm, companion, wildlife) or location (whether they are under ownership, in the

¹²⁷ For detailed rules on the prohibition of starvation as a method of warfare see AP I (n 24) art 54(1) and Commentary thereto (n 28) paras 2087–97.

¹²⁸ Marco Roscini, 'Targeting and Contemporary Aerial Bombardment' (2005) 54 *International and Comparative Law Quarterly* 411, 432–33.

¹²⁹ Peters (n 13) 408–09.

wild, in besieged cities). Whether the applicable IHL framework is sufficient to provide adequate protection for animals during the Russian invasion of Ukraine is a moot question, but assessing this is certainly beyond the scope of this article.

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