



# Animals and war

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## Streszczenie

Celem niniejszego artykułu jest analiza, w szerszym kontekście, pracy Stanisława Adamczewskiego pt. *Rzut oka na zmiany w faunie Warszawy i okolic wywołane przez wojnę*. Stanisław Adamczewski (1909–1987) był polskim entomologiem, zawodowo związanym z Instytutem Zoologii Polskiej Akademii Nauk; od 1930 r. do końca życia Adamczewski pełnił różne funkcje w Państwowym Muzeum Zoologicznym (później Instytut Zoologii Polskiej Akademii Nauk). Adamczewski prowadził badania nad składem gatunkowym i liczebnością motyli w Puszczy Białowieskiej oraz w środowiskach narażonych na presję antropogeniczną (Warszawa). Jego artykuł nie tylko analizuje zmiany i szkody, jakie wojna wyrządziła w przyrodzie podczas II wojny światowej, ale także niesie ogromny ładunek emocjonalny, ponieważ przedstawia życie w okupowanym mieście – zarówno ludzi, jak i zwierząt. Adamczewski skupia się na zmianach ekosystemowych wpływających na różne gatunki, najczęściej te współistniejące z ludźmi, a zatem łatwo dostrzegalne w codziennym życiu. Jednoznacznym wnioskiem płynącym z jego podejścia jest to, że przyroda – flora i fauna, rośliny, zwierzęta domowe, dzikie zwierzęta i ptaki – również są ofiarami wojny.

## Słowa kluczowe

Adamczewski, krajobraz, środowisko naturalne, zwierzęta, wojna

## Abstract

The aim of the paper is to analyse in a broader context Stanisław Adamczewski's article "A Glance at the changes in the fauna of Warsaw and its surroundings caused by the war". Stanisław Adamczewski (1909–1987) was a Polish entomologist, professionally associated with the Institute of Zoology at the Polish Academy of Sciences; from 1930 until the end of his life, Adamczewski held various positions at the State Zoological Museum (later Institute of Zoology, Polish Academy of Sciences). Adamczewski conducted research on the species composition and abundance of butterflies in the Białowieża Forest and in the environments exposed to anthropogenic pressure (Warsaw). His articles not only analyses the changes and damage that the war inflicted on nature during World War II, but also carries a tremendous emotional weight

as it depicts life in the occupied city—both human and animal. Adamczewski focuses on the eco-systemic changes affecting various species, most often those coexisting with humans, and therefore readily observed in everyday life. The unequivocal conclusion of his approach is that nature—flora and fauna, plants, domesticated animals, wild animals and birds—are war casualties just as well.

### Key words

Adamczewski, animals, landscape, natural environment, war

War is not unlike a tsunami that destroys everything which stands in the way of its devastating waves: people, animals, the architecture of towns and villages, industrial infrastructure and the natural world. I remember how deeply I was moved by a photograph that I came across on Facebook. It showed the ruined city of Mariupol in Ukraine: a pile of rubble where a block of flats once stood, and against the backdrop of the debris, there were beautiful, healthy red tulips sprouting from the charred earth. Their red and green colours stood in such a stark contrast to the evident signs of the cruelty of war. Someone must have planted the bulbs in the ground long before the war began. It remains unknown how many victims that collapsing building claimed, nor what became of the people associated with it. The bulbs survived, sprouted, and produced green leaves and red flowers. A symbol of spring? Perhaps, at least under normal circumstances, but in a setting depicted in the photograph, the flowers epitomized a cry of pain rather than a cheer of joy. When looking at that photograph, one tends to think first and foremost of the people who lived in that block of flats, forgetting that they were likely accompanied by pets: dogs, cats, parrots, canaries in cages, small domestic rodents—all of whom became victims of the attack as well.

Stanisław Adamczewski's article, unassumingly titled "A glance at the changes in the fauna of Warsaw and its surroundings caused by wars",<sup>1</sup> not only analyzes the changes and damage that the war inflicted on nature during World War II, but also carries a tremendous emotional weight as it depicts life in the occupied city—both human and animal<sup>2</sup>. In terms of the underlying sentiment, Adamczewski's description

1 Published in Polish and English in this issue.

2 Stanisław Franciszek Adamczewski (1909–1987), entomologist, graduate of the University of Warsaw (1939) and Maria Curie-Skłodowska University (doctorate, professorship), professionally associated with the Institute of Zoology at the Polish Academy of Sciences; from 1930 until the end of his life, Adamczewski held various positions at the State Zoological Museum (later Institute of Zoology, Polish Academy of Sciences); during the war, he was involved in securing and rescuing its collection, and subsequently in its reconstruction. Adamczewski conducted research on the species composition and abundance of butterflies in the Białowieża Forest and in the environments exposed to anthropogenic pressure (Warsaw), as well as on butterfly migration; in 1963–1970, he created a butterfly collection (now held at the Institute of Zoology, Polish Academy of Sciences). See biographical entries in: *Almanach entomologów polskich XX wieku*, ed. M. Bunalski, J. Lipa, J. Nowacki, Poznań 2001, p. 18; G. Winiarska, *Pamięci prof. dr. hab. Stanisława Franciszka Adamczewskiego (1909–1987)*, "Wiadomości entomologiczne", vol. X, 1991, n. 2., pp. 121–125 (the paper includes

is no different from Roman Kobendza's article on ruderal vegetation on post-war rubble.<sup>3</sup> The environmental aftermath of the war was not extensively studied at the time, but even those two accounts indicate that nature was indeed observed and studied *ad hoc*, to the extent possible in occupied Warsaw. Adamczewski focuses on the eco-systemic changes affecting various species, most often those coexisting with humans, and therefore readily observed in everyday life. This may suggest that nature shared human fates, adapting to new conditions where survival was the primary concern. Even so, the researcher's observations demonstrate that, for some species, the deteriorating living conditions of humans prompted their proliferation, resulting in swarms of food moths in the flour stocks hoarded by people, or the colonies of rats which inhabited the ruins. In wartime, certain species disappear while others flourish, but the cause always lies with humans. The unequivocal conclusion that may thus be drawn is as follows: war, and military action directed against humans, have a knock-on effect on nature. Nature—flora and fauna, plants, domesticated animals, wild animals and birds—become casualties just as well.

Today, similar observations are being made across war-torn Ukraine on a much larger scale, accompanied by a more profound environmental awareness. In 2022, *The New York Times* published a report on the ecological consequences of war, which was reprinted in *Gazeta Wyborcza* under the meaningful title “The Silent Victim”, followed by the equally significant subtitle: “Mangled Landscapes”. The year 2023 saw the publication of another report by a Polish-Ukrainian team entitled “Against Nature”.<sup>4</sup> The text outlined the scale of the destruction wrought by military operations on Ukraine's natural environment: “More than a dozen national parks and nature reserves have come under Russian occupation. In the areas affected by fighting, forests are burning, animals are dying, soil and vegetation are being trampled by heavy machinery, and animals are being hunted,” states the article in *Gazeta Wyborcza* based on the report.<sup>5</sup> During conventional warfare, soldiers dig trenches, tanks tear up vegetation, bombing leaves the landscape scarred, and explosives start fires. Fire from many types of weapons releases toxic gases or cause heavy metal leakage into the soil and water. There are many more consequences of war; those I have mentioned are merely a fraction of the entire list outlined in the report. One thing remains indisputable, namely there is a correlation between armed conflicts and the state of the natural world that sees the depletion of natural resources, climate change (soil erosion, global warming, acid rain), which in turn generate new social phenomena, such as mass migrations, including climate migration.<sup>6</sup>

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the bibliography of Adamczewski's works); [https://sparrow.up.poznan.pl/pte/almanach/Noty\\_PDF/A/Adamczewski%20Stanislaw.pdf](https://sparrow.up.poznan.pl/pte/almanach/Noty_PDF/A/Adamczewski%20Stanislaw.pdf) (Entomolodzy polscy (Polish entomologists) [last access: 20.10.2025]).

3 Published in Polish and English in this issue.

4 The report was prepared by the BIQdata team at “Gazeta Wyborcza,” in collaboration with the Kyiv-based marketing agency Top Lead.

5 A. Gadomska, K. Korzeniowska, *Przeciw naturze*, „Gazeta Wyborcza”, 12 June 2023.

6 E. Anthes, *The New York Times: Niema ofiara. Jak wojna niszczy naturę*, “Gazeta Wyborcza”, 24.04.2022.



Mariupol, source: Facebook/ Irina Wenediktowa

War transcends cultural boundaries when it draws nature into its vortex; nature becomes a victim, but also an unobvious participant in hostilities. According to the authors of the collective monograph *Oblicza wojny. Armia przeciw naturze* [*The Faces of War: The Military Against Nature*],<sup>7</sup> it was not uncommon for various elements of the natural environment to determine the outcome of wars or individual battles, as well as influence grand plans for conquests and campaigns. The history of using elephants in combat, e.g. by Alexander the Great, verges on historical anecdote; weather conditions had a decisive influence on Napoleon's campaigns in Russia, as they did on the defence of Stalingrad, where the combatants faced harsh, freezing winter. There are many more such examples, including Wojtek the bear, who was officially enlisted in the forces under Gen. Władysław Anders. Hurricanes, rain, snow and heat could significantly influence the outcomes of military operations, and this often proved to be the case. The editors of *The Faces of War...* state in the preface as follows: "When conducting military operations, armies do not only face enemy forces, but confront everything that can be described as nature. Weather conditions, the geographical environment, water obstacles, wild animals or the virgin and impenetrable forest have often influenced the outcomes of battles or wars. Those who were able to overcome or exploit the forces of nature often went down in history as great victors, outstanding commanders."<sup>8</sup> Here, one should particularly

<sup>7</sup> *Oblicza wojny. Armia przeciw naturze*, vol.1, ed. W. Jarno, J. Kita, Łódź 2020; *Oblicza wojny. Armia przeciw naturze*, vol.2, ed. Grabarczyk T., Pogońska-Pol M., Łódź 2020.

<sup>8</sup> *Oblicza wojny. Armia przeciw naturze*, vol.2, op. cit., p. 7.

note the mention of optimal “exploitation” of nature for military operations or approaching it as yet another enemy to be defeated. Although it is acknowledged that war affects nature by causing severe damage, it is seldom taken into account in the overall assessment of harm and destruction. Neither fauna nor flora are actually considered, even though they are just as devastated by hostilities as critical infrastructure, cities, towns or villages.

Destruction, devastation, animal deaths, as well as contamination of soil and water are by no means confined to war zones, because the consequences of hostile actions are far-reaching, affecting the entire natural environment which, after all, knows no physical or national boundaries. In effect, the impact of war is boundless, undermining entire ecosystems, such as vital bird migration routes, their breeding grounds or, in addition, key feeding and resting sites for migratory species. Maritime military operations offer another example, as they have a detrimental influence on the migration of various species of fish and marine mammals.<sup>9</sup> In some cases, environmental destruction is deliberate, as during the Vietnam War, when the US army sprayed chemicals over vast areas of jungle to thin out or burn down forests and deprive the enemy of cover. Nature is shown no mercy, as it is treated instrumentally: as a resource, an obstacle, an element of the war environment. The latter has given rise to a new term in the academic discourse, namely “ecocide”, whose etymology draws on other terms used in the discourse of extermination, such as “genocide” and “ethnocide”. Ecocide, or “eco-murder”, denotes the annihilation of nature by analogy with genocide.<sup>10</sup> Today, these issues are addressed in environmental history, ecocriticism and animal studies.

The aforementioned report eloquently demonstrates the destructive impact of war on nature. It is not merely mutilated, because one profoundly disrupts its balance and the stability of developmental processes, inevitably affecting biodiversity, climate and ecology in the regions where war is being waged. This is the aftermath of any war, regardless of where it may be taking place. The ravages and devastation bear witness to the irrationality of warfare, in which the natural environment becomes the victim. The report—as an objective account of the state of affairs—is unable to suggest solutions that would inform possible courses of action. It does not outline the processes that could restore nature’s natural rhythm, prompting a revival of what the human has destroyed. Such processes take time, just as all wounds require time to heal.

The war in Ukraine has shed a broader light on the problem and revealed new attitudes towards animals: domestic cats, dogs, as well as wild and exotic animals

9 Military operations have caused the deaths of thousands of dolphins living in the waters of the Black Sea. In effect, as many as 48,000 marine mammals may have died in just three months. The main mortality factor is the use of sonar, which emits high-frequency acoustic waves that damage brain structures of marine mammals. The animals lose their ability to navigate and use echolocation, which they need to hunt for fish.

10 K. Wróbel-Bardzik, *Krajobraz ruderalny (po)wojennej Warszawy*, “Teksty Drugie”, 2020, no. 3, p. 368.

living in zoos, highlighting their tragic fate. The situation is poignantly conveyed in the 2024 documentary *Us, Our Pets and the War* by Anton Ptushkin, as well as in various articles published in the media, online posts and periodicals.<sup>11</sup> Russian military operations, the occupation of the territories they seized, and the animals left on the front line—all that created a need to rescue animals, a cause taken up by Ukrainian and international organizations, volunteers and private individuals.<sup>12</sup> The war in Ukraine is not confined to ruined cities and human tragedies; one cannot fail to notice the plight of animals—abandoned in distress, injured, left in the ruins of homes and frontline shelters,<sup>13</sup> traumatized, turning feral<sup>14</sup>—nor the determination and courage of those who risk their lives to evacuate dogs and cats from areas shelled by the Russian army. This is epitomized in the words of Asia Sierpińska from the animal shelter in Hostomel near Kyiv—which might as well serve as the film’s motto—“You save an animal to remain human.”

The story of the animals from the zoos in Kyiv, Kharkiv and Odessa, which were rescued and transported from Ukraine to safe havens far from the war zone, reminds one of the wartime history of Warsaw Zoo during the tenure of director Jan Żabiński and his wife Antonina. When World War II broke out, the Germans dropped bombs directly onto its grounds, killing many animals. Some of the predators escaped into the wild and, driven mad by terror, ran through the streets of Warsaw. Those which survived had to be shot by the Polish army for safety reasons. After the surrender, the Germans plundered the zoo, taking the most valuable specimens to the Third Reich, to the zoological gardens in Berlin, Hanover and Vienna. The remainder were shot during a hunt they organized on the zoo grounds.<sup>15</sup>

Studies focusing on the canine population that remained on the front line showed that, albeit accustomed to living with humans, dogs eventually become feral, and when gathered in packs, they stay together and manage perfectly well. However, something else caught the researchers’ attention: the dogs found a way to survive by physically adapting themselves so that survival would be more effective. Nature copes to the best of its abilities. Both Kobendza and Adamczewski outline how things may develop following a disaster: left to its own devices, nature eventually

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11 They are so numerous that it is impossible to list them all. This means that the scale of the crisis is critical, and the number of animals in need is enormous. Shortly after the outbreak of the war, many dogs were brought to Poland and adopted. Fundraising campaigns for food and medication for the dogs still in Ukraine are still ongoing.

12 One such person is Wojciech Tochman, a reporter and writer who has become involved in the relief efforts by organizing aid for dogs in Ukraine. His upcoming reportage, *Delfiny i Belzebub* (Wydawnictwo Literackie, 2026), is dedicated to this very issue.

13 See the report prepared by <https://animalsurvival.org> (<https://tiny.pl/vbp6ngxwr> [last access: 20.10.2025]).

14 A. Ham, *War Came to Ukraine and Its Dogs Are Not the Same*, “The New York Times,” 8 February 2026.

15 A. Żabińska, *Ludzie i zwierzęta*, Kraków 2017. The story, spanning the Żabińskis’ efforts to save Jews from the ghetto by hiding them at the zoo, is recounted in the 2017 Niki Caro’s feature film *The Zookeeper’s Wife*, based on the novel by Diane Ackerman entitled *The Zookeeper’s Wife: A War Story* (2007). The Berlin Zoo shared a similar fate during the Allied air raids and the later shelling by the Red Army. The zoo was devastated; many animals were killed or had to be put down for safety reasons.

finds ways to regenerate, whereby this path leads back to the original state—just as the previously domestic dogs had to rekindle their natural instincts to survive. In the case of flora, the original state is the forest. Surprisingly, there is an optimistic note here: “Next to a pile of rubble, magnificent clumps of nettles grow, above which beautifully coloured skippers sway in the sun. Here and there, scattered bushes of poplars and willows grow, on which one sees spectacular caterpillars of the hawk-moths and the prominents. Insect life is flourishing. Nature is reclaiming the land once taken from it by man.”<sup>16</sup>

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16 S. Adamczewski, *Rzut oka na zmiany w faunie Warszawy i okolic wywołane przez wojny*, in this volume.