

IMPACT OF WAR AND MILITARY ACTIVITIES ON BIODIVERSITY

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Abstract

Although war events cause numerous negative consequences for society and the economy, their effect on nature and biodiversity is often overlooked. The aim of this research is to present as many examples as possible of the impact of war events and military activities on biodiversity, consolidate previous conclusions on this subject, and derive basic patterns. War conflicts can be conducted in different ways, so ground, aerial, and naval war operations are distinguished. In this regard, the impacts on biodiversity can also be different depending on whether the war involves the use of infantry or artillery, aviation or navies. During all the aforementioned types of warfare, environmental damage, habitat disturbance, noise generation, contamination, and direct mortality of living beings occur. In addition to these general effects, each of the mentioned types of war conflicts can also have many specific ones. Ground war conflicts have a particularly harmful character when they involve the use of armored vehicles, which destroy vegetation and surface layer of the soil only by moving through a terrain. The specificity of the influence of military aviation is the risk of a direct collision between military aircraft and birds, which leads to their death. The most pronounced negative effect of naval military operations is the use of sonar, particularly harmful to large marine mammals, which navigate in the oceans and seas based on echolocation. The use of nuclear weapons is very harmful to biodiversity because nuclear explosions have thermal, kinetic, and radioactive effects. Thermal and kinetic effects often have an immediate impact on living beings, causing lethal or sublethal consequences. On the other hand, the radioactive effect is usually long-term and can affect future generations. The use of chemical weapons during the war primarily harms humans but can also affect other organisms. Although it can be thought that war conflicts always have negative ecological consequences, their impact can sometimes even be positive for biodiversity through the elimination of other negative anthropogenic factors.