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## Conscience of Science: Ethical Imperatives in Zoological Research

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Zoological science is an intricate field which requires intimate considerations and guidelines to make sure that limits and boundaries are set for the ethical and humane conduction of research. A number of bioethical laws and international conventions have been designed by bioethical and committees and review boards that serve as moral compass steering towards responsible and humane scientific research. Animal Welfare Act (AWA) sets standards for the responsible treatment of animals in research, transport, exhibition and animal dealers, handling and research protocols, Guide for the Care and Use of Laboratory Animals that is published by National research Council of Unites States provides a framework for the proper use and optimal care of animals for in vivo research in laboratory experiments [1]. Similarly, European Union Directive 2010/63/EU is a directive which outlines the standards for the animal protection used for research purposes in the Europe. It states 3Rs of animal testing i.e., Refinement, Reduction and Replacement, and necessitates that researchers consider alternatives before resorting to the animal experiments. An elaborate directive, Declaration of Helsinki, primarily focuses on human research ethics but has principle related o animal research ethics as well [2]. Likewise, another Convention on International Trade in Endangered Species of Wild Fauna and Flora also called as CITES, deals with the trade of endangered animals ensuring that any research which involves endangered species is conducted ethically with proper permits and prevents illegal and unethical exploitation of animals [3]. Last but not the least, the ARRIVE guidelines provide a checklist of essential information which must be included while publishing the research data which describes animal experiments, promotes transparency and improve the quality of reporting in the animal research. The current global conditions necessitate ethical consciousness in zoological research. These considerations extend beyond laboratory settings and encompass wildlife conservation and the prevention of zoonotic diseases such as COVID-19. Innovations in non-invasive research methods, genetic analyses, and data-driven insights pave the way for more ethical and efficient scientific practices. Ethical consciousness aligning with the pursuit of knowledge nurtures a landscape where wonder of discovery and the ethical treatment of animals walk hand in hand.

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