Prawo weterynaryjne *Veterinary law*

Significance of legal interpretation for adaptive population management: Is it possible to use protected animals' meat for human consumption?

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Summary

The article analyses the legal possibility of using meat obtained from legally culled animals of protected species for human consumption, with particular regard to nature conservation law, food safety requirements, and adaptive population management. The aim of the study is to determine whether such use is permissible under Polish and European law and, if so, under what legal and veterinary conditions. National and European legal acts concerning nature conservation and food safety were examined using linguistic, systemic, functional, teleological, and pro-European methods of legal interpretation. The analysis indicates that Polish law does not explicitly prohibit the use for human consumption of meat obtained from legally culled protected animals. Such use may be considered permissible provided that several cumulative conditions are met. The killing of the animal must be legally justified and comply with the requirements governing derogations from species protection; the relevant administrative decision must permit the intended use; appropriate killing and handling procedures must be applied; and veterinary examination must confirm that the meat is safe and fit for human consumption. The use of meat from animals culled for reasons independent of food production may constitute an element of adaptive population management and may be compatible with the principles of sustainability, proportionality, and zero waste. Explicit statutory regulation of this issue could nevertheless increase legal certainty and provide a clearer framework for the controlled use of meat obtained from protected species.

Keywords: protected species, wild meat, adaptive population management, food safety, nature conservation law, legal interpretation

One of the *prima facie* associations with nature conservation, including animal species protection, is that humans should refrain from interfering with the lives of wild animals and establish numerous legal prohibitions and penalties for their violation. This is a common misconception and a cliché that has little to do with reality. Contemporary nature conservation is both passive and active, and at its core, it is more about managing animal populations. Various tools are used, including adaptive management mechanisms focused not on individual members of the protected species, but on the species population and the ecosystem in which it lives (21, 32, 33). It is not only a scientific position or a specific, promoted system of values; it has been incorporated into applicable law (13, 58), which also shares such axiological motivations.

Therefore, although the discussed regulations contain numerous restrictions and prohibitions regarding wild animals and their habitats, intended to effectively ensure the protection of a given animal species, the law also provides for exceptions and derogations from these prohibitions. One of the permissible exceptions is the killing of the individual animal.

However, the law does not explicitly define, nor does the legal doctrine or case law specify, what to do with an animal that has already been killed. For edible animals, one possible use for humans is consumption. This applies particularly to herbivores, which – were it not for species protection – could theoretically be consumed by people, and indeed have been in the past, such as European bison or beaver.

The research aims to determine whether it is possible to use protected animals' meat for human consumption, whether it is legal and under what conditions, or, conversely, whether it is prohibited by law. This study aims to show whether meat obtained from legally culled protected animals can be used in the mentioned way, provided it meets the hygiene, sanitary, and veterinary standards stipulated in the statutory provisions. The authors also aim to determine the role of legal interpretation in accepting or rejecting such a possibility and the consequences of individual solutions for adaptive population management.

The fundamental basis of this research must be emphasized: the authors only discuss what to do with meat obtained from legally and justifiably culled protected animal individuals and do not propose lowering the protection status of certain animal species or any form of hunting.

Material and methods

The subject of the analysis is national and European legal acts in the field of broadly understood veterinary law, especially nature conservation law and food safety law (5-14, 37-41, 43-50, 55-50). These legal acts were examined and interpreted using classical scientific methods of legal analysis and interpretation, inter allia, linguistic, functional, systemic, teleological, and pro-European methods. This allowed for the conclusion and for the formulation of *de lege lata* and *de lege ferenda* postulates regarding animal species protection and population management, as well as the admissibility of certain uses of meat from killed animals, including public health and food safety aspects.

Results and discussion

Numerous specific goals of contemporary nature conservation can be indicated, such as maintaining environmental sustainability, the "one health" concept, or reducing human–animal conflicts (32). Wildlife conservation depends on many factors; various adaptive management methods and the use of protected animals can be proposed. Effective management requires flexible and locally adapted solutions (21).

One possibility is of using wild meat from certain edible protected animal species for human consumption, while simultaneously ensuring the highest standards of food safety. The basic assumptions of such an approach are that: firstly, in wildlife conservation, the quality of the entire animal population is essential, not merely quantity (18, 22, 32); and secondly, that the law must consider and balance the interests of various spheres and various goods in a justified way. Such an adaptive approach can allow for long-term, effective wildlife protection.

It was determined that any form of animal protection under the law in force in Poland does not guarantee absolute and unconditional protection, and that nature conservation does not entail a complete prohibition of human intervention (16, 18, 32). Derogations are possible under Art. 56 of the Nature Conservation Act (58), implementing the Art. 16 of the Habitats Directive (13). In justified cases, sanitary or reduction culling is acceptable. Obtaining the individual administrative consent decision is a *sine qua non* premise (56, 58). It can be issued only for specific reasons permitted by law, in accordance with Art. 52 and 56 of the Nature Conservation Act (58). Moreover, such procedures must be strictly monitored and controlled. But is it permissible to use meat obtained from such animals?

a) Legal conditions of meat acquisition

Prima facie, the strict or partial legal protection of animal species means that meat from these animals is not legally traded in Poland. The prohibition on hunting seems to imply the unavailability and illegality of meat, which are associated with criminal and administrative liability for its introduction (7, 13, 14, 37-39, 41, 43-45, 47-50, 55, 57, 58, 60). However, it should be noted that American bison meat of domestic origin, from other European countries, or imported from third countries such as the USA or Canada, and elk meat imported from Scandinavia can be legally traded in Poland.

Nevertheless, it was revealed that European law, including the Habitats Directive (13), does not explicitly prohibit the use of meat from legally culled protected animals. The legal situation regarding the legal acquisition of meat from protected species is complex. Two competitive legal interpretations are possible, based on the linguistic wording of the provisions or on their purpose and function.

The prohibitions currently established in the Art. 52 of the Nature Conservation Act (58), in its current linguistic form, do not apply to meat intended for human consumption. According to the mentioned legal provision, it is prohibited to "acquire, keep, possess or prepare specimens," and the wording clearly indicates that this refers to the preparation of anatomical specimens, taxidermic preparation and stuffing of animals for the purpose of displaying them as trophies, or making utility items and clothing from body parts of these protected species. Only an expansive teleological interpretation can extend this prohibition to the possession and preparation of meat and meat dishes and products. Nevertheless, it is also illegal to sell or offer for sale, or transport such specimens (58). For this reason, one could question the possibility of introducing meat into the market and selling it. However, in this case too, the wording of the provision indicates that it concerns the sale of dead or live specimens as trophies or for keeping, respectively. Once again, only a functional and purposeful interpretation of the extensible normative prohibition on European bison or beaver meat.

Adopting an interpretation focused on the goal of species protection is grounded in the fundamental principle that the legal status of a protected species determines its potential use as food. This perspective

implies a complete prohibition on the consumption of meat from protected species. On the other hand, however, it should be remembered that prohibitions on killing, possessing, preparing, or selling meat are not ends in themselves. The goal of all nature conservation laws is the actual protection of the considered species (19). If, from the perspective of the entire population and the entire species protection program, there is no risk to the species resulting from meat consumption (and there is not, as the authors attempt to demonstrate throughout the entire discussion), then a teleological-functional interpretation does not preclude the use of meat for human consumption. Legal obstacles to the use of meat obtained through the legal culling of protected animals appear to be merely apparent.

Moreover, it should be emphasized that according to the rules of legal methodology, more advanced forms of interpretation, such as teleological and functional ones, could be resorted to, only if necessary and only if linguistic interpretation does not provide an answer as to the form of the legal norm. In this case, in the authors' opinion, linguistic interpretation of the Art. 52 of the Nature Conservation Act (58) is definitely sufficient.

Therefore, in light of the applicable norms, it could be permissible for competent authorities to issue consents for the reduction or sanitary culling of protected wildlife, while at the same time including in the decision consent to use the meat obtained for human consumption (including placing on the market). An administrative decision may allow the possession and use of meat on a derogation basis. It should be emphasized that the authors only propose the use of meat from animals that would be killed anyway for reasons other than meat production. This applies especially for typical reduction culling, particularly of European bison or beavers that generate harm and conflict with humans. In addition, it should be considered whether meat obtained from sanitary culling will also be allowed for consumption, provided the animals did not suffer from conditions that do not affect the sanitary veterinary assessment of meat (e.g., thelaziosis in European bison).

Thus, it might be necessary, and it is proposed to amend the existing statutory provisions, in particular Art. 52 and 56 of the Nature Conservation Act (58). This change should be liberalizing and expand derogation options, clearly stating that obtaining meat from protected animals killed for reasons other than consumption is legal. Legislative consideration should also be given to simplifying the consent procedure.

b) Food safety and veterinary protection of public health

The fundamental principle of food safety law is that only legal meat may be introduced into the market, and intended for human consumption (5, 6, 37-39, 41, 43-45, 50, 55, 57, 60). Simultaneously, there are two cumulative conditions for recognizing the legality of meat: the legality of its acquisition (legally permitted and justified slaughter or culling), and compliance with veterinary requirements, i.e., ensuring that such meat is safe for the public.

A crucial factor in veterinary requirements is the close integration of legal norms and veterinary scientific and medical knowledge. This relationship can be demonstrated in American bison. In both North American countries and the European Union, sanitary and veterinary regulations apply to the testing and approval for human consumption of meat from American bison kept by men, and these standards are essentially consistent with the requirements for post-slaughter inspection of cattle (6, 39).

Veterinary sanitary examination of discussed animal species felled in the wild shall not differ from the examination of other game (6, 39, 43-45, 50). After being culled, the animal might be sent to a game handling establishment and then to a restaurant or shop, or sold directly to consumers or to retail establishments for end consumers.

Nevertheless, veterinary sanitary examination must take into account the specific risks of each species, including transmissible diseases. In particular, the risk of *Trichinella* spp. should be considered (51). It is worth noting that it is also taken into account by European regulations for nutria (formerly bred in Poland, now an invasive alien species), and even for such extravagant and imported meats as crocodile (5).

Aside from the risks and possibilities of using wild meat, certain risks of not using it for human consumption can be observed. Of particular importance to animal and public health protection is the high risk of epidemics and epizootics posed by leaving the carcass of a dead herbivore in the forest, especially if there are not sufficient large predators such as bears or wolves nearby.

c) Extra-legal conditions

Currently, the basic factors influencing the protection status and the possibility of obtaining meat from wild animals are the number, health status, threat status, profile, and stability of the local population. This requires a legal model of protection that is derived from and consistent with the scientific model.

One of the crucial extra-legal conditions is the ethical and religious possibility of meat consumption. Within Christian culture, based on the famous passus "And there came a voice to him, Rise, Peter; kill, and eat", Acts 10:13, and the Gospels of Matthew 15:11 and Mark 7:15 (54), there are no restrictions on eating the meat of the herbivorous or omnivorous protected animal species, nor are any special spiritual properties attributed to them. Additionally, there are no religious or social taboos that affect the context discussed (19).

The modern ethical considerations regarding the inadmissibility of consuming wild meat, or, conversely, the inappropriateness of eating farm animals and the need to turn to limited hunting, should be addressed in the current study. These considerations will not be explored in depth, and opponents will probably not be convinced. The authors merely wish to highlight that consuming meat from protected animal species killed for reasons other than hunting can be consistent with the sustainability model and the zero-waste approach.

Scientific justification for the consumption of wild herbivore meat is well established. The nutritional value and quality of such meat compared to meat from domestic cattle are assessed as very good in terms of chemical composition, fatty acid profile (lower fat content and higher content of unsaturated fatty acids), and other parameters (27). Sustainable marketing can help promote wild meat as a healthy, ecologically sustainable product, thereby increasing consumer acceptance (30).

In poorer countries, game and wild meat (usually poached) are consumed by poor people, who supplement their diets this way. In wealthy countries, the situation is quite the opposite, and venison is regarded as luxurious. It should be noted that the vast majority of publications to date have focused primarily on poor countries, such as those in Africa or Asia (3, 4, 17, 20, 23, 25, 26, 36, 42, 61). The current research has a different assumption and concerns a different target of wild meat consumption. In Poland, venison is a niche product for both domestic and export markets. Target customer groups for products with strictly limited supply and high prices are exclusive. As indicated, this could be a continuation of historical tradition; dishes such as moose nostrils or beaver tail have always been strictly available only to royalty and nobility, both temporal and spiritual, and were treated as luxury food. Their acquisition was explicitly limited by law (1, 15, 19, 28, 29, 31, 33-35, 52, 53). Nevertheless, even such a limited supply and consumption can be an expression of historical continuity and of the maintenance of culinary tradition or "intangible heritage" (30).

A strictly limited supply of meat, exclusively from wild animals killed for another legally permitted reason or from farmed individuals of protected species, could have a beneficial effect on the entire population and the ecosystem. The thesis that elitist consumption of the types of meat described may have a stimulating effect on demand, including demand that an illegal supply of poached meat would meet, should be rejected as a dubious counterargument. The task of law enforcement agencies is to prevent the use of either illegally obtained meat or the overexploitation of permitted derogations allowing the killing of the animal species in question. This task would not be created by the proposal for meat use presented by the authors of this study. On the contrary, such a task is already legally imposed on administrative bodies (43-45, 47-50, 55, 57, 58, 60).

Decisions regarding population management, including culling, must take into account ecological factors such as climate change and the increasing numbers of wild predators, which may naturally limit herbivore populations (62). It is, therefore, necessary to use methods that effectively protect entire ecosystems, not just individual valuable species (2, 18, 22, 63). Managing animal populations, with or without culling or hunting, has profound biological consequences that should be taken into account in conservation policy and law (24). It also has social consequences, such as increased conflicts with humans and a deterioration in public perception of protected species, which may someday lead to changes in the law to the detriment of animals. In the contemporary population management model, conservation must be balanced with economic interests and human safety (22, 62).

Conclusions

Current research indicates that Polish law does not explicitly prohibit the use of meat from legally culled animals of protected species for human consumption. Obviously, it is possible to amend the statutory law to clearly and unambiguously allow such use of meat. Nevertheless, it is also possible to apply methods of interpreting the law that differ from those previously practiced. This will enable the discussed use without requiring a change in the law.

The legality of such consumption must depend on the fulfillment of cumulative conditions. In particular, the legality of killing the individual herbivorous animal can be indicated, meeting the strict criteria for derogation from the prohibitions contained in Polish and European nature conservation standards, which means a legal reason for culling – scientifically, factually, and legally justified. Another issue is whether such a possibility is permitted in the administrative decision permitting animal culling, issued by the competent authority. Further *sine qua non* criteria include the use of an appropriate killing procedure, veterinary sanitary examination of the animal, and a determination that the meat is safe and fit for human consumption.

An effective species management seems to be enabling the use of meat from animals that are already subject to elimination for other, legally permitted reasons. Such a possibility would also be consistent with the currently appraised approaches of zero waste, sustainability, and proportionality. In the authors' opinion, legalizing edible products from protected animals, carried out in a rational, scientifically justified, and adaptively limited manner, will not reduce the overall level of protection for certain species. On the contrary, it may help strengthen the health and stability of the population, and wild meat can be a valuable element of modern nature conservation management.

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