
THE DEER, THE SNAKE AND THE WATER

JEWISH MEDIEVAL INTERPRETATIONS OF

PSALM 42.1

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Abstract

In Psalm 42.1 the poet compares his craving for God to a deer that yearns for water sources. Medieval Jewish commentators offered various explanations for the poet's choice of a deer as a metaphor for longing for God. According to one commentary the deer hunt snakes as food, which make them very thirsty, whereby they run fast to 'streams of water', i.e., the snake's venom has the effect of heating the deer's body. According to another commentary the deer desires to reach deep streams in order to save itself from hunting dogs. The concept of the interaction between deer and snakes first appeared in classical literature. According to the Roman scholars the deer seek out snakes and extract them from their dens. The motif of the deer that attack snakes was retained from the classical sources until the Middle Ages and its impressions are evident in compilations of a zoological nature in European countries and in the Arab world.

Keywords: Psalms, deer, midrash, Bible, commentary

1. Introduction

Yearning for a remote, alienated, and sometimes indifferent God is a common element in the book of Psalms (Psalms 38.22, 44.25, 71.12, 102.3). The poet expresses his theological, religious, and social experiences and sensations through various literary means [1, 2]. Themes of nature (flora and fauna, the seasons of the year, natural phenomena) and landscapes, especially in Land of Israel, take a significant place in Psalms. Among others, the poet uses metaphors that draw from the qualities and behaviours of animals [3]. Some examples are the longing for God's courtyards, likened to a bird that strives to return to its nest (84.4), the poet's social isolation, similar to that of a lone bird on the roof (102.8), or his evasion of pursuing enemies, similar to a bird that evades a trap (124.7) [4, 5].

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In several Psalms, water is described as a source of strength, assurance and expression of life and vitality (1.1-3, 23.1-3). In another texts waters are sweeping flood which overwhelm an individual, and a symbol of fear tragedy and death (18.13-17; 69.1-3, 14-15; 124.1-5). In Psalms 42.1 the poet compares his craving for God to a deer that yearns for water sources: “As the hart panteth after the water brooks, so panteth my soul after thee, O God” [King James Version Bible (KJV)].

2. Purpose of the study

Medieval Jewish commentators offered various explanations for the poet's choice of a deer as a metaphor for longing for God [6-8]. In this paper I wish to focus on one interpretation, which suggests that deer eat snakes and they need water in order to neutralize the bad effect of the snake's venom. This interpretation raises several questions:

1. The conception of deer as eating snakes is first mentioned in Jewish sources in the 12th century. What are the literary-scientific origins of this outlook? Is it a medieval conception or is it perhaps more ancient?
2. Deer are herbivores. What is the origin of the conception that deer eat snakes?
3. How did the Jewish interpretive tradition of the snake-eating deer evolve, and in what way does it differ from the traditions prevalent in the Christian and Muslim world?

3. Discussion

3.1. Identification of the biblical deer

The *'ayyāl* (male), *'ayyāla* (female), and *'ayyālim* (plural) are mentioned in several places within biblical literature (Genesis 49.21, Deuteronomy 12.15, 14.5, Song of Songs 2.9). In fact, in most biblical translations the *'ayyāl* was identified with various species of deer (*Cervidae*). This is the identification of the Aramaic translations of the Torah (Onkelos: *'ayyāla*; Targum Pseudo-Jonathan: *'ayyālin*) [9], of the Septuagint (ἐλάφον) [10] and of the Vulgate (cervum) [11]. Medieval commentaries too agree that this is a type of deer, for instance R. Sa'adya Gaon's (Rasag, Egypt and Babylon 882/892–942) in his translation of the Torah into Arabic (ل = *'ayyāl*) [12]. The identification of the biblical deer with the genus *Capreolus* is customary among researchers of biblical animals [13-22].

The descriptions of nature and animals in the book of Psalms mostly reflect the vistas and nature of the Land of Israel, although the book also includes occasional references to physical characteristics of other regions, such as Lebanon and Babylonia (Psalms 92.13, 137.1-2) [3, p. 304-306]. No deer species currently live in the Land of Israel. Deer became extinct in the country as early as ancient times due to intensive hunting. The species of deer that were indigenous to the Land of Israel in the past are:

1. The roe deer (*Capreolus capreolus*) – A small (10-25 kg) and quick deer with reddish-brown fur (in summer) and grey-brown (in winter). This species is widespread in Europe and Mediterranean. The roe deer is herbivore and exists solitary or in small groups [23].
2. The fallow deer (*Dama dama*) – A medium-sized deer (males weigh up to 100 kg and females 45 kg). The fallow deer includes two species: the Persian fallow deer (*Dama dama mesopotamica*), which is native to Iran, and the common (European) fallow deer (*Dama dama dama*), which is native to the eastern Mediterranean [10, p. 95-96, 126].

Deer are mentioned, as stated, in various sources within Land of Israel Jewish literature (both biblical and rabbinical), and archaeozoological finds indicate that they indeed lived here in the past [24-28].

3.2. The deer that craves water sources in the Jewish commentaries on the book of Psalms

The first Jewish source to mention the phenomenon of the snake-eating deer as a basis for understanding the verse in Psalms is the Judeo-Spanish scholar Rabbi Abraham Ibn-Ezra (c. 1090-1164), who engaged in varied fields, such as biblical commentary, philosophy, linguistics, mathematics and astronomy. Ibn-Ezra was born in Tudela and subsequently lived in various countries in North Africa and Europe. His travels to different geographical regions, places, and cultures enriched his knowledge, and influenced his commentary on the Bible [29-31].

In his commentary on Psalms Ibn-Ezra writes: “It is known that the deer eats snakes, to warm its innards, and then it seeks streams of water – strong water” [32]. Ibn Ezra states that the deer’s trait of eating snakes is well known. Namely, this knowledge is based on the zoological science of his era [33]. (In his commentary on the Bible Ibn Ezra combined many zoological views that stems from contemporary science, such as the fact that the hare has only a female species, and that the hare is an animal that changes its sex from male to female.) He claims that since deer eat snakes the snake’s venom has the effect of heating the deer’s body. In order to dispense with its body heat the deer pants for “streams of water”, as Ibn Ezra says “strong water”, probably meaning flowing water (see below). Ibn Ezra’s short interpretation, typical of him in various parts of his biblical commentary, raises several doubts and questions:

1. He does not interpret whether the deer cools its body by drinking water or enters the water to cool off. It seems that the need for flowing water would be more relevant for cooling the body.
2. Deer are known as herbivores, so why do they eat snakes? Are they part of the deer’s diet? Or does it eat them to defend itself? Ibn Ezra and other Jewish sources do not discuss these questions, but as we shall see below they are mentioned in the general medieval zoological literature.

The deer's feature of eating snakes is mentioned several decades after Ibn Ezra in the commentary of R. David ben Yosef Kimchi (Radak, France 1165-1230), one of the greatest biblical commentators and grammarians of the Hebrew language, on the book of Psalms [34]. Radak elucidates the behaviour of the deer that pants for water in more detail. He writes: "Deer live in the desert (*midbar*) [35], where water is not common, and they thirst for water; moreover, they eat snakes and become hot, and seek water to cool off; and this is the reason for "streams of water" – which are places where water flows strongly. It is also said that deer, when chased by hunting dogs, flee to a place where they find deep water brooks, for which they pant, and they enter the water tired and are saved from them. And the midrash (Shocher Tov 22:14) says: This deer, when it is tired, it digs a pit and places its antlers in it and bellows, and water rises from the abyss, as it is said: "As the hart panteth after the water brooks" [32, p. 187].

Radak was familiar with Ibn Ezra's commentary on the Bible and he even mentions Ibn Ezra by name in several of his interpretations, for instance in his commentary on Genesis 46.15 [36]. In our case Radak does not mention Ibn Ezra explicitly, but there is good reason to assume that Ibn Ezra was the source of his interpretation. He does not make do with Ibn Ezra's interpretation that deer eat snakes, rather also suggests two other reasons for the deer's panting for water:

1. The natural habitat of the deer is the desert, a region where water is a rare resource and naturally, due to the hot weather, it becomes thirsty. According to this interpretation, the water is intended to quench its thirst and not to cool off its body. However, this interpretation is hard to accept because in the past deer did not live in the dry parts of the Land of Israel, i.e. the Negev or the Judean Desert. The roe deer was indigent to the entire Mediterranean region, while the fallow deer lived among dense scrub in the Galilee [37].
2. The deer was hunted for its delicious meat. Ibn Ezra, affected by medieval hunting methods, claimed that it was chased by hunting dogs [38, 39]. The deer desires to reach deep streams in order to enter the water and save itself from the dogs. In contrast to Ibn Ezra's interpretation, whereby the deer enters the water in order to cool its body, according to this interpretation the deer seeks to reach water to protect itself from the dogs. Radak bases his words on a midrash aggadah on the book of Psalms that speaks of a tired doe (*'ayyāla*) that digs a pit in the earth, from whence ground water emerges. (Midrash Tehillim is called 'Agadat Tehillim', or 'Midrash Shocher Tov', however the time and the place of its composition are disputed. Shlomo Buber, the editor of the midrash, claimed that it is an ancient midrash compiled in the Land of Israel [40]. On the other hand, Yom Tov Lipman Zunz is of the opinion that it is a later midrash compiled in the period of the Geonim [40, p. 6].) The midrash does not explain why the doe is tired and why it bellows. Radak attributes this to the process of the hunt, which saps the doe's strength as a result of being chased by the dogs, and as he sees it the bellowing reflects a plea or craving for water to save it from the dogs.

Another stage in the interpretation of the verse is R. Menachem ben Shlomo Ha-Meiri (1249-1315), among the greatest interpreters of the Talmud, who lived in the town of Perpignan in Provence [41]. Meiri appears to have been affected by Radak's interpretation, who, as stated, also lived in Provence several decades earlier, or perhaps by another Provencal source that continued this tradition. He writes: "The matter is, that deer – are accustomed to eating snakes, and the heat grows within them as a result of the hunt, and they are in the desert, where there is not much water, and because of their craving for water they go and run strongly [= fast] until they find streams of water to quench their thirst. And the word *afikim* (streams) designates deep pits, where water runs when strongly flowing from the mountains." [32]

According to the Meiri as well, deer hunt snakes as food, which make them very thirsty (probably because of the venom), whereby they run fast to 'streams of water', however according to his understanding these are deep pits, i.e. cisterns (in contrast to the water streams suggested by Radak). However, he too, who probably copied this from an external source, is unable to explain why deer eat snakes – as food or as a defensive measure?

The interpretation that speaks of deer that need water to deal with poisonous substances appears in the biblical interpretive literature until the 19th century. R. Meir Leibush son of R. Yehiel Michel Wisser (Malbim, Ukraine, 19th century), who was undoubtedly affected by the medieval commentators, brings a close interpretive variation, although slightly different than that of his predecessors [42, 43]. He interprets: "The deer naturally thirsts for water, and besides that it eats poisonous roots and seeks to expel the poison with water" [44]. The Malbim states that deer feed on poisonous plants, rather than snakes as stated by all previous Jewish commentators, maybe because he knew that deer are not carnivores. He adds that deer may thirst for water 'naturally', i.e. that their high thirst threshold is an inherent trait. In any case, he does not state, as did his predecessors, that this stems from their hot habitat.

The inclination to eat plants considered poisonous is well known among gazelles (*Gazella gazelle*) in Land of Israel, for instance that they eat squill leaves (*Drimia maritima* [= *Urginea maritime*]) [37, vol. XI: Flowering Plants B]. At the beginning of the winter, squill leaves appear above ground and at this stage they are eaten by gazelles. The gazelles eat them because they are the only plants available in late fall or because at this stage the poison level of the leaves is lower than at later stages. This practice is documented in various rabbinical sources. For instance, the sages relate that Noah stocked the ark with squill as food for the gazelles [45, 46]. According to the Babylonian Talmud, Shabbat 128a, it is permissible to transport squill leaves on the Sabbath "because they are the food of the gazelles". The Malbim may have learned about this practice from rabbinical literature but switched the gazelles for deer. European sages often confused the two, thinking that the gazelles mentioned in the Bible and in rabbinical literature are the deer familiar to them from their own land (there are no gazelles in Europe) [47].

3.3. *The association between deer and snakes in classical sources and in the medieval literature*

The concept of the interaction between deer and snakes first appeared in classical literature. In his book ‘*Historia Animalium*’, Aristotle (384–322 BC) mentions the features of the deer (such as his speed and big horns) and demonstrates his doubt concerning the task of the horns [Aristotle, *Hist. Animal.* 4.11, 538b, 611a-b]. (Roger French has pointed out that Aristotle was quite explicit that the horns of the deer have no purpose. The horns are not a mean to protect himself against its predators, and it defences himself by its speed [48].) However, he did not refer to the conflict between deer and snakes, although as a rule he did relate to confrontations between various animals [49, 50].

As far as we know, the first source to report a conflict between the two was Roman poet and philosopher Titus Lucretius Carus (99 BC – c. 55 BC) [Lucretius, *De natura rerum*, book 6]. Lucretius relates that deer extract snakes from their hiding place using their breath, but is doubtful about this. He brings the information laconically and does not note the reason for the deer’s behaviour – does it eat the snakes or is it a defensive behaviour. The conflict between deer and snakes appears in several classical sources in the first century AD, of which one of the most prominent is Pliny the Elder (23-79 CE). In his compilation ‘*Naturalis Historia*’ (= Natural History) he relates to several aspects that involve deer and their features. He describes them as simple, gentle, long-lived animals [51], and relates to their altercations with snakes and eagles [20, Book X, 5]. Pliny claims that deer fight snakes and that their relationship is characterized by antagonism [Oppian *Cyn.* 2.233, Hal. 2.289, Aelian. *Nat. Animal.* 2.9]. He brings the information reported by Lucretius, whereby deer seek out snakes and extract them from their dens by blowing air through their nostrils. He writes: “The stag, too, fights with the serpent: it traces out the serpent’s hole, and draws it forth by the breath of its nostrils, and hence it is that the smell of burnt stags’ horn has the remarkable power of driving away serpents” [Natural History, Book VIII, 50; XXVIII, 42]. (Compare [40]: “R. Judah ben R. Simon said: ‘A house that there are snakes in it, you bring stags’ horn, you smoke it in the house and immediately the snake ran-away.’”) According to this passage, snakes are afraid of the horns (their smell), but the stag doesn’t use them to kill or to drive away the snakes, only by blowing air through their nostrils.

The animosity between the deer and snakes is manifested not only in the attempt to harm snakes, rather even burning deer antlers can keep snakes away. Elsewhere, Pliny adds that the deer has ‘hot’ breath capable of searing snakes. (Natural History, Book XI, 115: “The breath of the elephant will attract serpents from their holes, while that of the stag scorches them.”) He also provides an interesting detail related to beliefs regarding the heat of the deer’s body. Deer do not contract temperature-related diseases and thus their meat might be beneficial for people who develop a fever. He doesn’t explain why, but it seems that consuming snake venom protects from temperature-related diseases. In any case, in this source Pliny does not report eating snakes but rather attacking them,

and certainly not needing water sources as a result of consuming the venom (on “flesh of stags fed upon serpents” see Lucan, *Pharsalia*, book 6, trans. Edward Ridley, London, 1896, verse 809-810).

Another important source concerning deer behaviour is the *Physiologus*, a Christian compilation originally compiled by an unknown author, written in Greek and translated into Latin. This work, which was written circa the second and fourth centuries CE, probably in Alexandria, deals with animals, their description, features, and symbolism [52, 53]. The author devoted several chapters to a variety of animals – birds, mammals, imaginary creatures, and even trees and stones (chapter XIII is about snakes and chapter XLV about deer). The *Physiologus* is the first source to refer to the deer’s longing for water in the context of its antagonism toward snakes. He begins his entry on deer by citing the verse in Psalms 42.1 and says that this stems from the need to deal with the snake’s venom. He writes: “when the snake flees into cracks in the earth, the stag drinks water from a stream and spews the water into the crack, drawing out the snake. The stag then stamps on the snake until killing it. According to the author the struggle is interpreted as meaning that Christ killed the devil (snake) with the waters of heavenly words of wisdom.” [54, 55]

Interestingly, while according to ancient authors the deer extracts the snake from its hiding place using its breath, the *Physiologus* says that it sprays water from its mouth into the snake’s den in order to draw it out [56].

Rabbinical sources from the Talmudic era also refer to the conflict between deer and snakes, however in contrast to the Roman sources that present the deer as harming snakes, the sages cite the myth of the snake that bites the doe and helps it deliver its offspring. The Babylonian Talmud (Vilna edition, Re’em, Vilna 1882), Tractate Bava Batra 16b, relates: ““Or canst thou mark when the hinds do calve?” (Job 39:1 [KJV]) This hind has a narrow womb. When she crouches for delivery, I prepare a dragon (in the text: *drakon*) which bites her at the opening of the womb, and she is delivered of her offspring; and were it one second too soon or too late, she would die.”

As stated by researchers of Talmudic zoology, the *drakon*-dragon here is a snake [3, p. 348]. According to the midrash, the doe (hind) has a narrow womb and thus finds it hard to deliver. The snake appears at exactly the right timing and bites the doe’s womb. The bite causes the area to slacken and if it would not do so the doe would die. Assumedly, the midrash originates from folkloristic conceptions of the interaction between the two, but in the Babylonian tradition the association between them is positive.

3.4. Snake-eating deer in medieval literature

Medieval Jewish commentators took the concept of the conflict between deer and snakes from contemporary philosophies and integrated it in their interpretations of the book of Psalms. I shall refer primarily to Christian European sources, which supposedly influenced the Jewish sages mentioned above.

The motif of the deer that attack snakes was retained from the classical sources until the Middle Ages and its impressions are evident in Christian religious literature, in compilations of a zoological nature in European countries (bestiaries) and in the Arab world (Kitāb al-Ḥayawān, كتاب الحيوان), as well as in visual art. (On the Serpent-Eating Stag in the Renaissance see [57].)

Medieval sources note the conflict between deer and snakes and add several important details concerning the deer's conduct. The theologian and archbishop of Seville, Isidore of Seville (c. 560-636 CE), writes in his book 'The Etymologies', an encyclopaedia of divine topics [58, 59], that deer attack snakes when the deer are sick or weak: "They are antagonistic to serpents; when they sense themselves burdened with infirmity, they draw the serpents from their caves with the breath from their nostrils, and having overcome the malignancy of the poison, the deer are restored to health by eating the serpents" [60].

Isidore of Seville claims that the deer extracts the snake from its den by using air expelled from the nostrils. The deer are not affected by the venom and in this way they overcome their weakness or illness. Nevertheless, as evident from the quotation, Isidore mentions no association between the deer and water sources, and particularly their need for water in order to deal with the venom. According to Isidore of Seville, the deer eat the snakes, and interestingly, killing snakes by means of eating, beating, or trampling with the feet is a common element in medieval illustrated art.

Isidore's description, written in the early middle ages, contributes to the understanding and elucidation of several points pertaining to Jewish interpretations. He was, in fact, the first to state explicitly that the deer eat snakes for medical purposes, i.e. to strengthen their body or to deal with illness. In contrast to Jewish sources that do not explain the reasons for the antagonism between the two, Isidore argues outright that this is not the deer's regular food rather a healing substance, a view that derives from the use of snake venom as an important medical component in medieval Theriac medications [61-63]. Interestingly, Isidore further relates that deer are capable of treating themselves not only by using snakes but rather also by means of the dittany herb (*Origanum dictamnus*). He reports that when a deer is hit a hunter's arrows it consumes the herb and this causes the arrow to fall out of its body.

The Physiologus was translated into various languages and was considered a popular compilation in medieval European countries. The volume had a considerable influence on the appearance of animal-related motifs in this period, including the conflict between deer and snakes. Various contents of the Physiologus and 'The Etymologies' of Isidore of Seville were included in the bestiaries (bestiarum vocabulum), a genre of animal books encompassing descriptions and explanations on a variety of animals, together with illustrations and morals related to each animal [64]. These books were popular in medieval England (such as Aberdeen Bestiary) and France [65, 66], a fact that also offers a possible explanation for the integration of deer and snakes in Jewish interpretations in Provence in this period (Radak and Meiri). There are many manuscripts of the animal books genre. Some resemble each other in their

contents and illustrations and, based on their similarities, they are often categorized as belonging to families. (The first researcher that introduced such classification was M.R. James [67].)

As stated by Willene B. Clark, the second-family bestiary is the most important and dominant of the bestiary families, hence I shall suggest a reference to the deer motif from a text published by Clark that belongs to this group [68]. Chapter 16 describes the deer, the origins of its name, and its qualities. It relates that deer and snakes are adversaries. When the deer is weak it seeks the den of a snake and drives it out by expelling air from its nostrils. It manages to contend with the venom and eating the snake gives it strength [68, p. 134]. Evidently, the text is based on ancient traditions that appear in classical sources and in the writings of Isidore of Seville, and in fact it adds no new details on the association between deer and snakes. The author cites the version whereby the deer drives the snake out using its breath, as mentioned by most authors, and not with water as in the *Physiologus*. He also does not mention the need for water to moderate the effect of the venom nor the theological-moral association between eating snakes and the chapter in Psalms.

Interestingly, some Muslim traditions say that deer avoid drinking water after eating snakes. As shown by Anna Contadini, according to a tradition cited by the 13th century Arab author Ibn Bakhtīshū', when the deer becomes thirsty after eating a snake it goes to a water source and circles it. But it does not drink the water because of the knowledge given to it by God that if it were to drink the water it would die. Hence, it waits four days until the venom dissipates and then it drinks. Ibn Bakhtīshū' does not explain the reason that the deer avoids drinking water. Anna Contadini suggests, that Ibn Bakhtīshū's words may be explained according to the Persian physician, and geographer Abu Yahya Zakariya' ibn Muhammad al-Qazwini (1203–1283), who says that the deer avoids drinking water so that the snake's venom will not spread to other parts of its body with the water it drinks [69].

4. Conclusions

The association between deer and snakes in Jewish literature firstly appeared in Talmudic sources. According to these sources, the interaction between the two has to do with the difficult delivery experienced by the doe. The snake bites the doe and thus advances its stalled delivery. In classical sources we find an association between the two in another context. The deer is the snake's adversary and it pursues the snake.

Jewish medieval sources offer various interpretations of the verse in Psalms 42.1. R. Shlomo Yitzchaki (Rashi, 1040–1105), who lived in northern France, interpreted the verse according to rabbinical midrashim. He says that the verse refers to both the male and the female deer who crave God. The male, according to Midrash Tehillim, is considered the most devout of all animals and when the animals thirst for water they beseech it to pray to Heaven for water and it digs a pit into which it lowers its antlers and bellows to God and water ascends to it

from below. Although the midrash is worded in the feminine, Rashi says that it speaks of the male, as in most deer species the males are those known for their branching antlers that are shed and grow anew each year. Notably, there are some exceptional species, for instance the reindeer (*Rangifer tarandus*) where the females too have antlers, and the musk deer (*Moschus moschiferus*) that have no antlers among both males and females [37, p. 252-253]. In Rashi's opinion, the male craves water for all animals while the female craves God when she crouches for delivery and God listens to her and summons the snake to her aid.

Rashi makes no mention of the narrative of the deer that thirsts for water after eating a snake. It is not clear whether Rashi was familiar with this tradition and preferred to remain loyal to rabbinical sources, or perhaps he was not familiar with it. In any case, as we stated above, the first Jewish-interpretive source to describe the deer's craving for water as a result of eating snakes is Abraham Ibn Ezra. As we saw above, the initial tradition that ties the snake-eating deer to the verse in Psalms is Christian (the Physiologus), bearing the symbolic meaning of Jesus (the deer) who destroys the snake (the devil). Accordingly, this seems to be an ancient Christian interpretation that encroached on medieval Jewish interpretations.

Jews were probably not concerned of the foreign tradition that penetrated their texts because they were not familiar with its Christian symbolism or, alternately, perceived the animosity between the deer and the snake as purely zoological-realistic information explaining the meaning of the image in the verse. Notably, the Christian sources themselves do not always mention the moral of the words, rather refer to the deer's altercations as a zoological rather than a theological fact. Ibn Ezra wrote two commentaries on the book of Psalms and both were written while he was living in Europe. As stated above, he lived, operated, and travelled through various regions so it is hard to know whether he was exposed to the tradition of the deer who eats snakes when in Spain or Europe and it is also hard to know whether he was exposed to it by reading or contact with classical or contemporary sources. The natural sciences, based as they were on Greek and classical literature, reached medieval European Jews in different ways, among others through encyclopaedias written in Hebrew [70].

Assumedly, the tradition that Ibn Ezra integrated in his commentary on Psalms eventually arrived in southern France, similar to various traditions, laws, and customs that arrived in Spain from nearby Provence [71, 72]. Radak was familiar with Ibn Ezra's interpretations and even cited him, and he may have been the 'agent' who introduced the tradition to sources in Provence. The question that begs asking concerns the origins of the tradition on deer that attack snakes. Does this information have any realistic basis or is it a popular-folklorist conception?

Some scholars, such as Louis Charbonneau-Lassay, claim that this is a phenomenon that exists in certain species of deer or goats [73], and there are also human testimonies of such attacks. (See for example the testimony of Silas Claiborne Turnbo (from July 16, 1902), "deer killing snakes", in The Turnbo Manuscripts, 1844-1925, <https://thelibrary.org/lochist/turnbo/V9/ST232.html>. Many testimonies on deer killing Rattlesnakes, venomous snakes of the genera

Crotalus and *Sistrurus* may be found on [74].) The prevalence of the phenomenon and its extent are unclear and there is room to explore this zoological topic at greater length. In any case, the manner in which the phenomenon is described in ancient sources (for instance blowing into the snake's den or spraying water) and its explanations (healing the deer) clearly have no realistic foundation.

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