

THE BEAST IN THE FEAST

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Abstract

Archaeozoological evidence is instrumental in reconstructing mundane diets. On the other hand, comprehensive information on high-status food is available in Early Modern Age cookbooks. This paper is the zoological identification of wild mammals in a cookbook published in Hungarian at the end of the 17th century in Transylvania. Game animals listed in this work are compared to their representation in the archaeological record. Correspondences are striking in the case of common game. However, exotica (marine animals and other creatures originating from high status import) have not yet been found at archaeological sites in Hungary.

Introduction

Feasts for secular and ecclesiastic dignitaries and royal courts, often entertaining hundreds, were grandiose events in power centres across medieval Europe. They were highlighted by exotic dishes, prepared from eccentric ingredients, often exploiting visual effects (Mänd 1999). The cookbook of Anna Bornemisza from 1680 analyzed here is a noteworthy example, hence its rich zoological inventory. It was re-published by Elemér Lakó in 1983, whose introduction evaluates the linguistics of the Hungarian text from Transylvania comparing it to the German original that inspired its writing. It omits, however, the rich zoological detail embedded in the book. This article is a review of twenty species of wild mammals in 221 recipes. Zoological identification, cultural meaning and archaeozoological evidence are discussed. The authors would like to thank Sven Lübbbers (Jagdschloss Springe, Germany) and Erika Gál for their kind help, which was instrumental in producing the final version of this manuscript.

Historical background

Anna Bornemisza (†1688) was the wife of Michael Apafi (1632–1690), elected Prince of Transylvania. He was supported by the Ottoman Empire that occupied much of Hungary, seeking independence from the Holy Roman Emperor Leopold I and protection for the Protestant religion (Figure 1). János Keszei was commissioned to produce a cookbook for her. Although Keszei

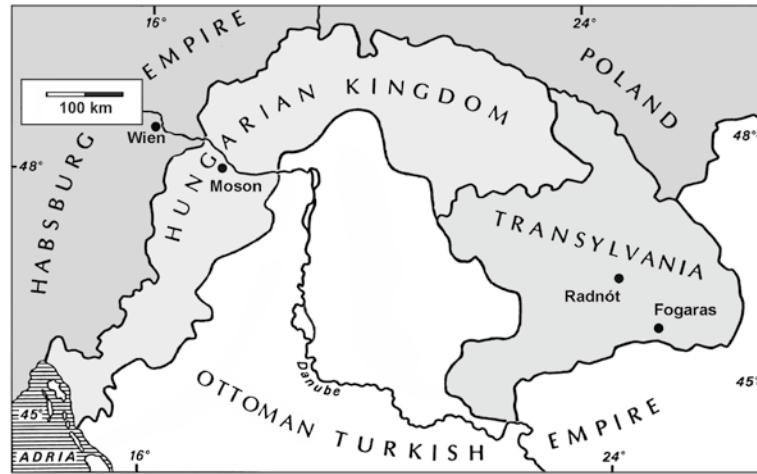


Fig. 1: Hungary during the 16-17th c. Ottoman Turkish Period with historical loci mentioned in the text

is widely thought to have been the court chef of Apafi, he was an aspiring intellectual from Moson (Western Hungary), emerging from being a private teacher, through scribe and secretary to ambassador of Michael II Apafi to Vienna (Lakó 1983: 29). He relied on a royal source, written by the Chef of the Mainz Elector, Marx Rumpolt³, published in 1581. Rumpolt had supposedly created a perfect cookbook “under privilege of the Holy Roman Emperor” in a heavily Catholic cultural environment. He listed almost anything that can be cooked (Herman 1887: 128), a fact that evidently impressed Keszei. Rumpolt included animals exotic in the landlocked plains of central-western Germany, such as Alpine and marine creatures as well as New World curiosities. Most were adopted in the Hungarian version.

Taxonomy

Keszei began working on 7 February 1680 in the princely court at Fogaras, and finished the abridged translation by 23 August in Radnót. He added nothing to Rumpolt’s book but merged and excised some chapters. He reduced the original by a quarter, dropping e.g. the chapter on aurochs (Lakó 1983: 25) as possibly irrelevant: the last specimen was killed in Poland during

³ In the preface Rumpolt mentions that he was born in Hungary as his grandparents had been driven north from “small Walachia” (today Oltenia, between the Carpathians and the Danube) by the Turks.

1627, half a century before Keszei's translation. It disappeared centuries earlier from Hungary (Vörös 1985: 203-205), but was possibly known in Germany when Rumpolt's book was written. The analysis of Keszei's book is facilitated by the fact that it is structured by categories of raw materials. As adopted from the frontispiece of Rumpolt's book,⁴ it is "A certain and clear instruction / on how / one should prepare a multitude of meals / in the German, Hungarian, Spanish, Italian and French ways / using tame and wild four-footed beasts / birds and riverine as well as sea fish".

International diversity is further reflected in the range of animals. Both follow the logic of Aristotle's [1910: I, 6] *Historia animalium* – influential throughout the Middle Ages – beginning with "viviparous quadrupeds...". Categories of animals are represented by different numbers of items (Table 1).⁵

Fish and fowl dominate. Game make up only one fifth (Figure 2) by 221 recipes. This number is inflated to 378 by cross-references between animals prepared in identical ways (see Table 2 for redundancies). The average number of recipes explicitly listed is 10.9 per animal (standard deviation= 12.9). In addition to the high degree of variation, the species distribution of recipes is skewed: more common large game (red deer, wild boar) are represented by dozens of entries (Figure 3) while 11 exotic species are mentioned only once each.

Identifying wild animals

Grouping by Keszei	Number of items	Item No. in book	Comment
Domestic mammals	7 categories	57-63	listing ox, cow, and the young of most species as separate items
Wild mammals	21 species	64-84	
Fowl	39 species	85-113	
Fish	39 species	114-459	
Varia	7 taxa	147-148, 151-152, 160-163	including marine invertebrates, frog and tortoise

Table 1: The taxonomic contents of Keszei's cookbook

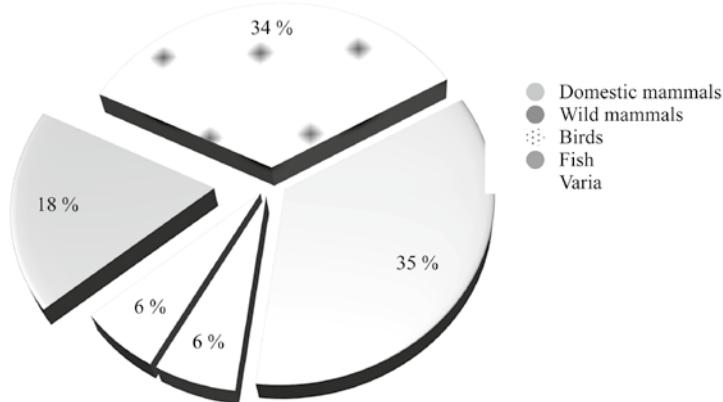


Fig. 2: The taxonomic distribution of 123 items in Keszei's book

Since the unabridged German original listed animals little known in Hungary, Keszei encountered difficulties translating 78 years before the Latin binomial nomenclature was published by Linnaeus in 1758, in the 10th edition of *Systema naturae*. Of the 39 fish, he retained the German names for 19 species (Herman 1887: 130-131). However, all 21 wild animals appear in Hungarian. Some differences in translation appear minor but have a bearing on zoological identification. Rumpolt distinguishes four-footed "heymische" from "wilde Thiere". As the German word "Heim" means "home" this seems a distinction between domestic from wild. However, "Eynheimische Saw" is listed among game.

⁴ "Was ist ein gründliche Beschreibung wie man recht und wol / nicht allein von vierfüssigen / heymischen und wilden Thieren / sondern auch von mancherley Vögeln und Federwildpret / darzu von allem grünen und dürren Fischwerck / allerley Speiß / als gesotten / gebraten / gebacken / Presolen / Carbonaden / mancherley Pasteten und Füllwerck / Gallrat / etc. auf Teutsche / Ungerische / Hispanische / Italianische und Französische weiß / kochen und zubereiten solle." (Rumpolt 1581: frontispiece).

⁵ The word item is used to indicate not only species but concepts established by other criteria, such as age and sex for domesticates or the wild, feral and domestic forms of the same species.

Common species in Keszei's book occur already under their modern names. Some terms such as the odd name, cat-monkey for marmot, have been long forgotten. Others were literal translations of the German original. All names, with English translations and identification in Linnean terms are shown in Table 2.

Almost all items are illustrated in Rumpolt's work. Most can be used in identification. Sometimes, however, identical pictures appear for different animals (see Table 4 below): a limited pool of woodcuts was used by typographers rather than zoologists (Lemmer 1976: 16-17).

Item numbers in Keszei's book reflect the decreasing sequence of the variety of foods made from an animal largely paralleling availability. Spearman rank correlation

between the position of animals in Table 2 and the number of associated recipes was $r_s = -0.650$ ($P \leq 0.001$, $df=19$), confirming that there was a greater variety in preparing common game. It is the symbolic value attached to the perception and size of each animal that adds variability to this order. Zoological identification is reviewed by major animal groups.

Ungulates

Among large game, wild boar (and "forest hog") is represented by the most recipes (18% of the total). This is nearly twice the share of piglets (11.1%) among the recipes for domesticates (in contrast with Rumpolt, who discussed pigs for the skewer in detail, Keszei mentions only piglets), while Keszei describes 43 recipes for wild boar and forest hog.

Hungarian name by Keszei 1680	Itemno.	German name by Rumpolt 1581	English translation of Keszei 1680	Linnean name	no. of recipes Keszei 1680	no. of recipes Rumpolt 1581
szarvas	64	Hirsch	red deer	<i>Cervus elaphus</i> L., 1758	37	37
dámvad	65	Dendel	fallow deer	<i>Dama dama</i>	32	32
óz	66	Reh	roe deer	<i>Capreolus capreolus</i> L., 1758	29	29
nyúl	67	Hase	brown hare	<i>Lepus europaeus</i> Pallas 1778	20	20
vadkan	68	Schwein Wildpret	wild boar	<i>Sus scrofa</i> L., 1758	43	43
erdei disznó	68	Eynheimisches Schwein	forest hog	<i>Sus domesticus</i> Erxl. 1777?	with wild boar (43)	like wild boar (43)
gyanver	69	Elendl	elk	<i>Alces alces</i> L., 1758	like deer (37)	like deer (37)
(not listed)		Aurochsen	(aurochs)	<i>Bos primigenius</i> Boj. 1827	0	like ox (83)
bial	70	Pößel	buffalo	<i>Bubalus?</i> <i>Bison bonasus</i> L., 1758?	like ox (83)	like ox (83)
medve	71	Beer	brown bear	<i>Ursus arctos</i> L., 1758	1	1
vadló	72	wildes Pferdt	wild horse	<i>Equus ferus</i> Boddaert, 1785	1	1
vadkecske	73	Gemß	wild goat	<i>Rupicapra rupicapra</i> L., 1758	16	16
havasi kecskebak	74	Steinbock	mountain bock	<i>Capra ibex</i> L., 1758	2	2
török juh	75	Türckisches Schaf	Turkish sheep	<i>Ovis aries</i> L., 1758	13	13
macskamajom	76	Murmentel	cat-monkey	<i>Marmota marmota</i> L., 1758	6	6
tengeri kutya	77	Meerhundt	sea dog	<i>Phoca vitulina</i> L., 1758	1	1
hód	78	Biber	beaver	<i>Castor fiber</i> L., 1758	1	1
tengeri disznó	79	Meerschwein	sea pig	<i>Phocoena phocoena</i> L., 1758?	1	1
indiai disznó	80	Indianisches Schwein	Indian hog	<i>Cavia porcellus</i> L., 1758?	4	4
tengeri tővisesdisznó	81	Meerigel	sea hedgehog	<i>Hystrix</i> sp.	1	1
tővisesdisznó	82	Eynheimischer Igel	hedgehog	<i>Erinaceus concolor</i> Martin, 1838	1	1
tengeri nyúl	83	Küniglein	sea hare	<i>Oryctolagus cuniculus</i> L., 1758	11	11
(not listed)		Kaninchchen	(rabbit)	<i>Oryctolagus cuniculus</i> L., 1758	0	like Küniglein (11)
mókus	84	Eichhorn	squirrel	<i>Sciurus vulgaris</i> L., 1758	1	1
Total					221 (378)	221 (478)

Table 2: The list of wild mammals included in Keszei's and Rumpolt's works.

Problematic names, different from modern Hungarian and German usage, are marked by boldface print.

Parenthesized numbers indicate redundant recipes of single items with reference to more common animals.

Wild boar is followed by „Eynheimisches Schwein“ in Rumpolt's original. It is evidently this term that corresponds to forest hog, perhaps making up for the lack of recipes for adult domestic pigs.

Three common deer species are mentioned in the text in a decreasing order by body size. Fallow deer was an Early Modern Age import to Hungarian game parks (Vörös 2003: 74). In spite of Keszei's unambiguous usage of the term fallow deer, Rumpolt's book shows a roebuck for this item called *Dendel* in German. In 1530, the Danish king presented 30 fallow deer to Landgraf Wilhelm von Hessen. These became a founder population in Europe and gave rise to names such as *Dendel*, and related spellings,⁶ referring to the Danish origin (Stinglwagner and Haseder 2000: 153-158; Grimm and Grimm 1854-1960).

Roe deer is illustrated with the picture of a doe. One of the explanations may have been that the two names were used to denote male and female roe deer. A mixture of sexually characteristic organs for fallow deer in the recipes, however, refutes this hypothesis (Table 3).

Item	Rumpolt, recipe No.	Keszei, recipe No.
Dendel/fallow deer	3 "horn" 18 udder 19, 23 penis 32 foetus	3 "horn" 18 udder 32 foetus
Roe deer	14 udder 29 foetus	14 udder 29 foetus

Table 3: Terms referring to the sex of fallow deer and roe deer

The items to follow are more contradictory. The first is the Hungarian term gyanver that follows wild boar in the list, with a reference to deer for cooking. The term gyanver seems of Persian origin through Turkish mediation, meaning “dangerous animals such as wolf, boar or snake” (Steuerwald 1988). In Kurdish gyanever means unspecified large beast. Most fortunately, the original term used by Rumpolt, Elendt, unambiguously means European elk (c. f. “Elend” in Krünitz, 1733-1858, vol. 10, 706-713 and French: élan). Today Eland is the Dutch name for elk.⁷ The animal depicted in Rumpolt's

book differs from red deer by the presence of dewlap, its broad-(based) antler and a slight hump at the withers.

The next item followed aurochs in Rumpolt's book. Keszei calls it bial, a Hungarian synonym for water buffalo (“BIVALY (Bivaj), ou BIAL. Noms hongrois du buffle”; de Sève 1816: 462). However, it is a domesticate, actually introduced to Hungary during the Ottoman Period (Bartosiewicz and Gál 2004: 371, Ill. 5). Rumpolt asserts that his corresponding item, Pöffel, can be prepared as a tame ox, although it has tougher meat. For aurochs, he recommends salting and thorough cooking, while “calves of Pöffel are as good as of a cow”. Keszei, however, compares this beast only to oxen. Possibly, both listed this imported domesticate as game for the status attached to its consumption. However, its horns in Rumpolt's book are upright and shorter than those of aurochs, even if a bovine labelled water buffalo (Büffel/Bubalus) with atypical, lyre-shaped horn was also published by Adam Lonicer (1582) in Frankfurt am Main.

An alternative interpretation for this beast is also likely. There was chronic confusion regarding the nomenclature of aurochs and bison, in spite of the fact that Siegmund Freiherr von Herberstein (1549), published woodcuts of these distinct species promoting consistent nomenclature (Figure 4). The Latin term comes venatorum bubalorum from medieval Hungary (Jankovich 1967) probably refers to the hierarchy of aurochs hunters. It originates from a time when domestic water buffaloes were probably unknown, the word, bubalus, coincides with the Linnean name of that domesticate. According to the Collins Dictionary, the American usage of buffalo for bison originates from 16th century Italian, through Late Latin for Greek boubalos, from Greek bous: ox. The linguistic circle is thus closed, although is of little help in identifying the animal.

Bison was common in Transylvania. János Petényi Salamon reports an 1814 extinction date from near Udvarhelyszék in Transylvania, while the last bison in Moldavia (present-day NE Romania), was killed in 1852 (Bejenaru 2003: 154). Bison, therefore, may be considered a logical interpretation for buffalo, presuming that Keszei and Rumpolt indeed meant a wild beast. This is congruent with feasting on bison at late medieval wedding celebrations in hilly northern Hungary (Zolnay 1971; Bartosiewicz 1995).

⁶Dänl, Dändl, Dendl, Dähnewild, Dandel, Dienl, Denl, Donl, Danwild, the Linnean name *Dama* and even Hungarian dámavad, probably a literal translation from German.

⁷This evidently played a role in naming the largest antelope species eland (*Taurotragus oryx* Pallas 1766) in Afrikaans, a word in common English usage.

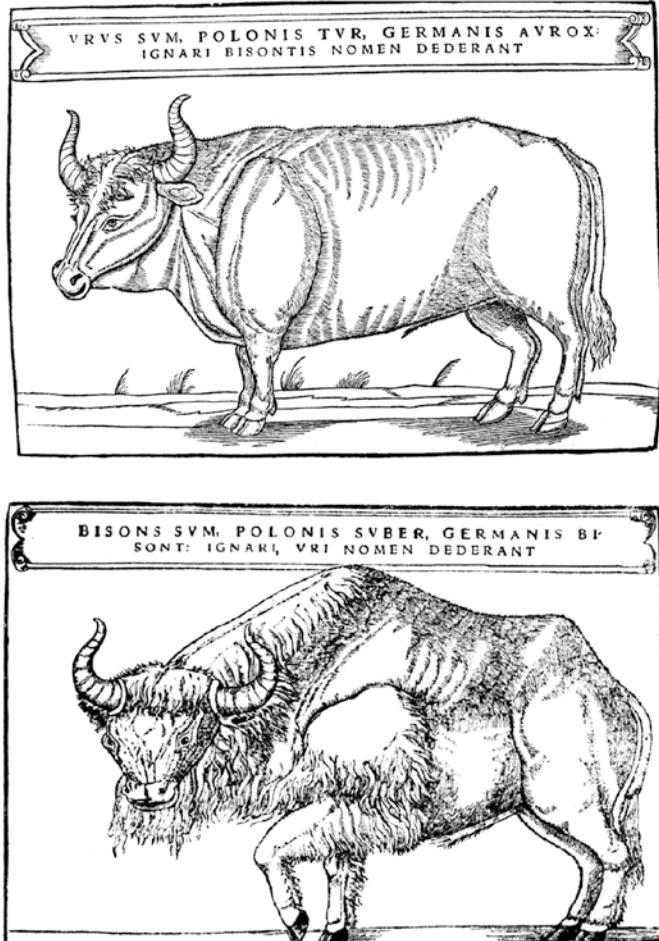


Fig. 4: Herberstein's (1549) illustrations of aurochs and bison listing names in Latin, Polish and German with a cautionary note

"Wild horse" is another noteworthy item in this cookbook. The mere existence of even prehistoric wild horses has been debated in Central Europe (Vörös 1981). References to *equus sylvestris* in Hungarian medieval documents (Jankovich 1970: 258) may thus concern feral horses. Pope Gregory III imposed a ban on [domestic] horse meat as "unhealthy" for observing Christians in AD 732 (Becker 1994). Chevaline regained popularity only after the French Revolution, widely advertised as "health food" (Simoons 1961: 85). Both cookbooks were written between these dates: we cannot interpret their relation to this religious regulation. While horse is not mentioned among domesticates

in the cookbooks, Rumpolt states: "...prepare the testicles like those of a domestic horse as earlier noted for the testicles of the ram".⁸ Here again Rumpolt uses "eynheimisch" for horse, juxtaposed to the concept of "wild". Keszei simply writes: "... prepare its second kidney (sic!) as that of sheep".

Today "wild goat" is a generic Hungarian term, but was recognized as chamois in Rumpolt's original (Gemß). Another goat, "mountain bock", was identified as ibex (*Capra ibex* L. 1758; Steinbock). The only cuckoo's egg among caprines is "Turkish sheep".⁹ Rumpolt shows a woolly, hornless domestic sheep from behind. Its tail is similar in size to that of the "Arabian sheepe with a broad taile", so named by Topsell (1607: 600) after Herodotus (Figure 5). Suet has been substituted for lard in countries where pork is avoided. There was a fascination among western travellers with these large tails, sometimes weighing 20-30 pounds and fitted onto tiny carts (Raff 1846), as shown in a 1682 picture of "*Ovis orientalis*" from Ethiopia (Zeuner 1963: 82). The last recipe for this animal in both cookbooks explains how the tail is breaded to catch the tasty drippings, thus lending weight to our reasoning.

Non-ungulate exotica

Another truly exotic creature is "Indian hog". Since, given its small size, the recipe recommend its preparation as a piglet, this animal sounds like Guinea pig thought to have originated from the "Indias" (c.f. turkey= *d'Inde* in French; Bartosiewicz 2006: Fig. 116). This is proven by Gesner (1669: 176) who offers several synonyms: "Indianische Küniglein oder Säulein (... auch Meer-Schweinlein ...)". The fierce boar illustrating Rumpolt's item, far from the delicious fatty rodents domesticated in the Andes during pre-Columbian times (Rosenfeld 2008), must be a mistake by the printer.

The interchangeable uses of India and the sea in these names show that, two meanings of "sea" are worth distinguishing. One is horizontal, expressing intercontinental distance. Aside from Guinea pig, examples include Meerkatze (sea cat= guenon, *Cercopithecus*; not listed in the cookbooks) and another Hungarian synonym for maize (tengeri).

⁸ "Du kannst auch die Geil / wie von einem Eynheimischen Pferdt zurichten / wie vorhin vermeldet ist von der Böck Geil." (Rumpolt 1581: LVI).⁹ Similarly to German, the adjective "Turkish" in Hungarian has often been associated with exotica: Turkish wheat= maize, Turkish tomato= egg plant, Turkish pepper= red pepper, i. e. paprika (c. f. Szenczi Molnár 1604).

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The alternative meaning is vertical, referring to marine habitats. The old Hungarian and German names of porpoise and seal represent this usage. Meerschwein used by Rumpolt is nowadays called Schweinswal (Brockhaus 1902, vol. 11: 719; Krünitz 1733-1858, vol. 87: 212-214; Schulze 1996: 20-22). Confusion arises from the fact that in modern German Meerschwein means Guinea pig. In old German Meerhund meant harbour seal, today called Seehund (Krünitz 1733-1858, vol. 87: 143; vol. 112: 599-610). Interestingly, the English names of both refer to the habitat as ‘harbour’. Owing to the proximity of the North and Baltic Seas, these mammals were less exotic in Central Germany. However, they are oddities in a Transylvanian context. Cross-checking Rumpolt’s book for the meaning of sea pig gave a “horizontal twist” to the problem: it shows a porcupine; even the patterning of the quill is precisely depicted.

Vom Türkischen Schaf seind dreyzenerley Speiß vnd Trachten zu machen.



The Arabian sheep with a broad tale.

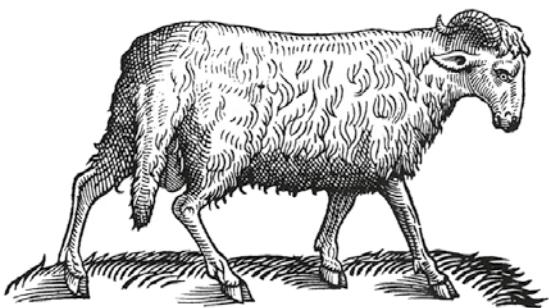


Fig. 5: Turkish (Rumpolt 1581) and Arabian (Topsell 1607) sheep

¹⁰ “was vom Meer ist / kan man in Faß Tagen zurichten” (Rumpolt 1581: LXI)

¹¹ The word means sea urchin in modern German.

This links the recipe to sea hedgehog, Meer Igel, illustrated with the woodcut of a different porcupine. The two animals may be prepared in largely similar ways. According to Rumpolt, “what is from the sea, can be prepared on Lenten days”.¹⁰ This statement, however, blurs the vertical/horizontal distinction between marine creatures and overseas curiosities. This overlap in meaning posed one of the greatest difficulties in interpreting the German and Hungarian term for “sea pig”. The 18th century encyclopedia by Johann Georg Krünitz refers to both porpoise and Guinea pig as “Meerschwein”. In addition, porcupine, another exotic import is shown under the same name by Rumpolt and was also thus defined by Krünitz (1733-1858, vol. 167: 634). It is, however, only sea hedgehog (Meer Igel, evidently a porcupine¹¹) that was explicitly recommended by Keszei for Lenten days as “growing in the sea”. One may wonder, whether asserting the vertical meaning of sea was a way of adding yet another warm blooded terrestrial animal to the Lent menu. In any case, while Rumpolt’s expression “from the sea” points more to the horizontal meaning of sea, Keszei’s term “in the sea” represents the vertical meaning. There are three species to be reckoned with as sea hedgehog: crested porcupine (*Hystrix cristata* L., 1758), Indian crested porcupine (*Hystrix indica* Kerr, 1792) and South African crested porcupine (*Hystrix africaeaustralis* Eters, 1852). The first two live in the Mediterranean, where their meat is considered a delicacy. Since not even the exact identity of sea pig could be established, attempting species identification for porcupines in Rumpolt’s woodcuts would not be realistic.

The last “sea” animal, sea hare represents yet another horizontal interpretation: it corresponds to Küniglein by Rumpolt (1581: LXI-LXII), illustrated with the same picture as rabbit (Kaninchchen). Recipes under these two names were merged by Keszei as sea hare. Both German names indeed mean rabbit; Kaninchchen is modern German, while Küniglein was used in the old, Oberdeutsch dialect (Krünitz 1733-1858, vol. 34: 124-145). Ancient Romans kept hares and wild rabbits (reputedly imported from Hispania) in leporaria (Varro [1971] 421-423). Domestication probably took place in medieval Iberia. By the 12th century AD, rabbits reached Germany with religious orders engaged in their breeding and became popular in princely and aristocratic courts (Nachtsheim 1936: 245).

In mediaeval leporaria, rabbits were treated as half domesticates. Medieval domestic rabbits were sometimes released in order to contribute to a prolific supply of small game, with unborn and new-born rabbits harvested and eaten during Lent before their eyes opened (Bökonyi 1974: 335; Adamson 2004: 36). However, no relevant comments were made either by Rumpolt or Keszei.

Other game

Brown hare is common in the plains of Central Europe, also reflected in the number of recipes. It looks under-represented in recipes relative to large game, possibly owing to its smaller size (Figure 3).

Of large rodents cat monkey, that is marmot, figures in six recipes. It was relatively widespread across Europe, although today it is found above 1000 m. It was more easily available in hilly Transylvania than in the Mainz area. A lowland species, bobak (*Marmota bobak* Müller, 1776) lived in the plains of Bukovina and Galicia in the late 19th century (Mojsisovics 1886). Its present-day consumption is well known in Mongolia.

Beaver is better known for its culinary value in Europe. Its flat, scaly tail figures as “the tail of a fish” in learned writings, offering a license to eat beaver tails during Lent (Wilson 1991: 38). Gölfferich (1547: 7), compares beaver to a seal with big teeth, noting that it has its tail in water and is therefore half meat and half fish. Note that this mammal’s aquatic way of life was considered: river otter (*Lutra lutra* L., 1758) was another mammal sold at fish markets (e.g. Franz Synders: The Fish Market, c.a. 1618, Kunsthistorisches Museum, Wien; the painting also shows a seal) as a replacement for “meat”. In their study on tortoise eating, Kunst and Gemel (2000) refer to the continuity of eating such curiosities in Catholic regions of Southern Germany and Austria until the 19th century. This is also shown by beaver and otter recipes in a “modern” Hungarian cookbook adopted to the needs (sic!) of housewives; aside from the tail and feet, mentioned by Keszei, beaver “ham” was added to the list of delicacies (Czifray 1840: 320-321). A charming zoological mistake in Rumpolt’s book is that the woodcut shows this rodent predating on fish (Figure 6), possibly confusing it with otter. Medieval people, however, must have had intimate knowledge of

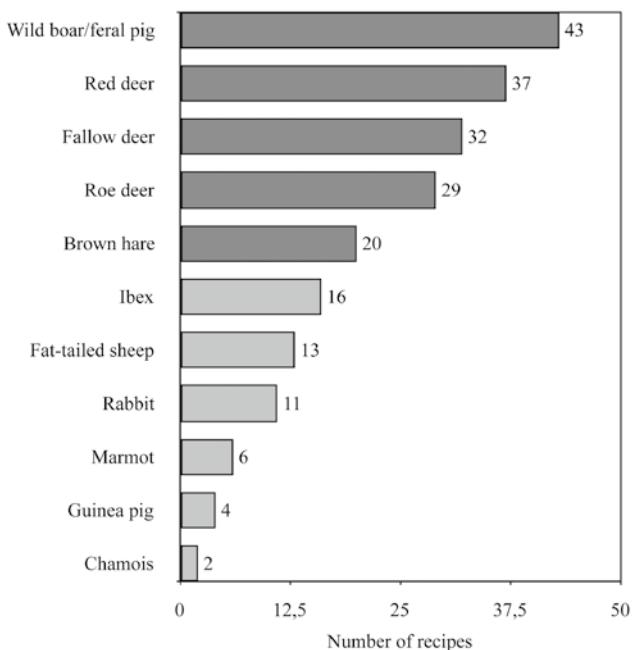


Fig. 3: The ranking of wild mammals represented by more than 1 recipe in Keszei’s book (common game are marked by dark shading)

Fig. 6: Piscivorous beaver in Rumpolt’s 1581 cookbook

Von einem Biber.



beavers. According to medieval documents (1211–1452) in Transylvania, aside from Hungarian toponyms referring to this animal (hód-), some specialized in catching beavers. They were kept in captivity for both their meat and pelts in the 16th century (Bejenaru 2003: 156).

Common squirrel is unambiguously identifiable in both texts and in Rumpolt’s illustration.¹² Research into the Creutzfeldt-Jakob disease revealed an ethnographic parallel to squirrel eating in rural Kentucky, where people consume either the meat or the brains of grey squirrels (*Sciurus carolinensis* Gmelin, 1788)

¹² The closest, small rodent of culinary importance was fat dormouse (*Glis glis* L., 1758), fattened by Romans in gliaria (Vehling 1977: 205).

but generally never both (Blakeslee 1997). Those who consume the meat, turn the squirrel into a stew. Families that eat brains follow gift-giving rituals. The head may be fried, the skull cracked open then the brains are sucked out. Brains may also be scrambled in white gravy or eggs. These recipes show the cultural complexity of food habits even today, often unintelligible to the outsider.

Crested porcupine, suspected behind the term sea hedgehog, is another large rodent. Eastern European hedgehog, however, is a small insectivore, also recommended by Keszei either grilled or in a pâté. In addition to Antique references by Pliny the Elder, Hildegardis (1099-1179) a mystic and scholar, abbess of St. Rupert at Bingen am Rhein, recommends that hedgehog be prepared like rabbit with spices (Kicsi and Magyar 2007). The tradition of eating hedgehogs survived in the Balearics and Iberia, where curative powers were ascribed to this meat (Lloyd 2007). Recipes from Germany concern the northern hedgehog (*Erinaceus europaeus* L., 1758). Western travellers to Hungary noted that gypsies in this country consume this animal (Kicsi and Magyar 2007).

The most “significant other” game is brown bear, represented by a single recipe in Keszei’s book. It primarily concerns the paws, a known delicacy, although preparing the head, “the same way as that of a pig”, is also mentioned. Bear has been perhaps the most dangerous large game in Europe, its hunting and consumption therefore, were high-status privileges that required communal effort and possibly the employment of specialist hunters. Bear, an adaptable carnivore, withdrew to hilly woodland owing to human expansion. It is common in present-day Transylvania, owing to decades of protection. The status or even prestige attached to bear meat may be explained by the major challenge posed by its procurement.

Discussion

This paper is a zoological review of a cookbook from Central Germany, adopted in Transylvania, and to be compared with animal remains mostly from the territory of modern-day Hungary. Contrasts and tensions between the biogeographically determined local wildlife in the areas involved and the idealistic compilation of eccentric foods, however, has shed light on important questions regarding meat provisioning and long distance trade or, simply, wishful thinking.

Dichotomies

The evident wild/domestic distinction in this book intersects with concepts of social stratification as well as local versus distant identities. Subsistence hunting had lost importance to husbandry in Europe long before medieval times. An opportunistic supplement in need for commons, hunting was pursued as a sport by the wealthy. According to the 1536 *topos* by Oláh [2000: 43], “in certain regions of Hungary, there is such an abundance of ... game that ... noblemen and commons alike were allowed to hunt and catch as many as they needed or wished”. Hunting, especially large game, must have been regulated as a privilege used in re-asserting social supremacy. The idea of maintaining game parks for aurochs, bison and elk in medieval Poland (Dembinska 1999: 85) illustrates this possibility.

In contrast to wild boar, the forest hog (Eyheimische Saw) has less hair and a curled tail, similar to “Spensaw” shown in the domestic section in Rumpolt’s book. Until recently, pigs have often been herded in woodlands. This practice was aimed at both seasonal feeding on acorn and upgrading domestic stock by wild boars. Pigs were thus something inbetween domestic and feral both genetically and conceptually. “Swamp hogs” in Poland resembled wild boar in flavor, but were considered live-stock (Dembinska 1999: 88).

Therefore, “native pig”, distinguished from wild boar and translated by Keszei as forest hog is of special interest. (Keszei left out Rumpolt’s native horse, Eynheimisches Pferdt, mentioned tangentially among wild horse recipes).



*Fig. 7:
Keszei’s drawing of a butcher*

Domestic	Wild
wether (Hammel)	Turkish sheep (Türkisches Schaf)
bull (Stier)	buffalo (Pöffel)
pig for roast (Spensaw)	Indian hog (Indianisches Schwein)*

*Identified as Guinea pig in the text

*Table 4:
Identical illustrations for
domesticates and “game”
in Rumpolt’s book*

Since Rumpolt’s time there was a shift in the meaning of “eynheimisch”. Today it means native/authochtonous/indigenous. With a single exception (Eynheimischer Igel= hedgehog), the term is juxtaposed to wild animals in Rumpolt’s text. Literal usage allows this, although further research into old Mittelhochdeutsch will be required to clarify this observation. Keszei’s sporadic illustrations of his own manuscript show limited zoological detail (Figure 7). Sometimes Rumpolt published identical woodcuts for different animals (Table 4), cross-cutting the domestic/wild dichotomy.

The domestic/wild sub-division may be considered analogous with the familiar/unfamiliar distinction. Exotica form a sub-set of this dichotomy, defined along a different dimension, explaining the placement of Turkish sheep, [domestic] Guinea pig and perhaps water buffalo among game. While sea hare could be rather safely identified as rabbit, the wild or domestic status of this imported animal remains a question. In the Middle Ages, both familiar and unfamiliar creatures were used to address audiences in iconography (Jaritz 2005: 120) to mediate messages in society. The consumption of unfamiliar rather than ordinary domesticates conveyed the social status of the host. “Sea” mammals fall within the same category.

Religious considerations

By around the time of Pope Gregory the Great (590-604 AD) the Lenten fast lasted 40 days. It was a communal experience shared by true believers in discomfort. Fasting and feasting, therefore, have usually been juxtaposed as notions that exclude each other (Henisch 1994). This contrast, however, depends on social, chronological, and regional context. Rules of abstinence varied even between religious orders and historical situations (De Grossi Mazzorin and Minnitti 1999: 48). Galik and Kunst (2004: 232) mention the possible effect of Counter-Reformation on religious diets during the 17th century. For prosperous people, fasting often meant an opportunity and a challenge to consume extraordinary

expensive food, thereby satisfying their need for (self) representation (Jaritz 1987). Avoiding meat was only one aspect of abstinence and a major part of a cook’s skills concerned the options available for meals conforming religious prohibition (Scully 1995: 74). Culinary associations between “all sorts of marine and land snails, otter and beaver-fish (sic!) during Lent” (Bethlen 1955 I. 30) show that given enough money and power, it posed no problem to arrange lavish feasts instead of periods of abstinence, keeping formally to the letter of fasting regulations.

In light of the strong animosity between competing Christian denominations in the Carpathian Basin, actually divided between Catholics (west), Protestants (east) and Muslims (south), it is particularly interesting that not only fish represent the richest and most varied component in the Keszei cookbook, but even the long lists of birds and wild mammals adopted from Rumpolt contain animals whose aquatic nature would have legalized their consumption during Lent. A hand-written note by Anna Bornemisza scribbled on the inner cover of her cookbook reminds the reader: “This book warns you to first seek the food of your soul, then God will feed your body as well” (Lakó 1983: 26).

Archaeozoological evidence

Excavated settlement materials confirm that medieval hunting was negligible in terms of meat provisioning. This is consistent with the low proportion of wild animals in ordinary food inventories (Benda 2004: 223). In spite of their diachronically increasing interference with nature, humans exploited only a fraction of the game available in their environments. In Hungary, the number of mammalian species (excluding “microfauna”, i.e. small rodents, bats, etc.) known from archaeological excavations is only one third (39/110) of the relevant prey species present in the fauna (Bartosiewicz and Gál 2007: Table 2).

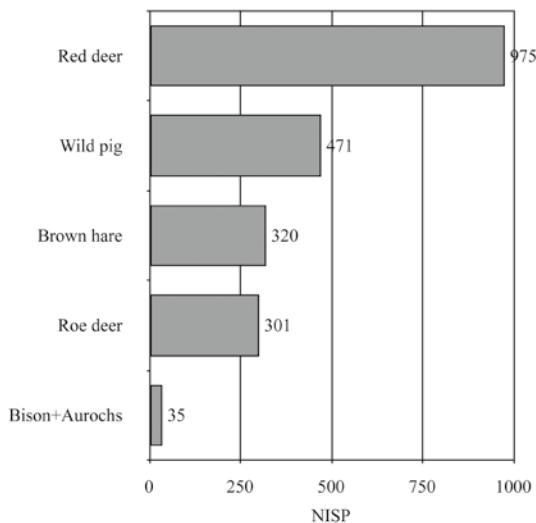


Fig. 8: The ranking of major game at 81 medieval settlements in Hungary

The opposite of mundane reality (reflected in most archaeozoological assemblages), is represented by the cookbooks discussed here. Archaeological remains of the animals in recipes inspired by the German cookbook occur mostly at high status/administrative centres in Hungary. Comparing the number of identifiable specimens (NISP) from 29 rural, 26 urban and 26 high status settlements (Bartosiewicz 1999a: Tables 1-6) the contribution of game remains to 69,015 bones can be evaluated. Considering only red deer, roe deer, wild pig, brown hare and aurochs/bison, a total of 2102 wild animal remains were counted, a mere 3% of the pooled assemblage. Species proportions within this fraction are shown in Figure 8. (Red deer may be overrepresented owing to the occasional inclusion of antler into NISP in earlier publications).

Game remains broken down by settlement type show differences between rural (1.57% wild NISP), urban (0.93% wild NISP) and high status (5.25% wild NISP) sites. The contribution of game is the highest for the heterogeneous group of the latter that includes monastic centres, royal and aristocratic residences as well as military headquarters. Even at these sites, however, the contribution of game is very small (Figure 9), although it shows not only the superior supply of wild animals (especially venison) to high status kitchens, but also the greater significance of dangerous boar, bear and wild bovines.

Rank order and representation parallel each other in the case of red deer, roe deer, wild boar and brown hare

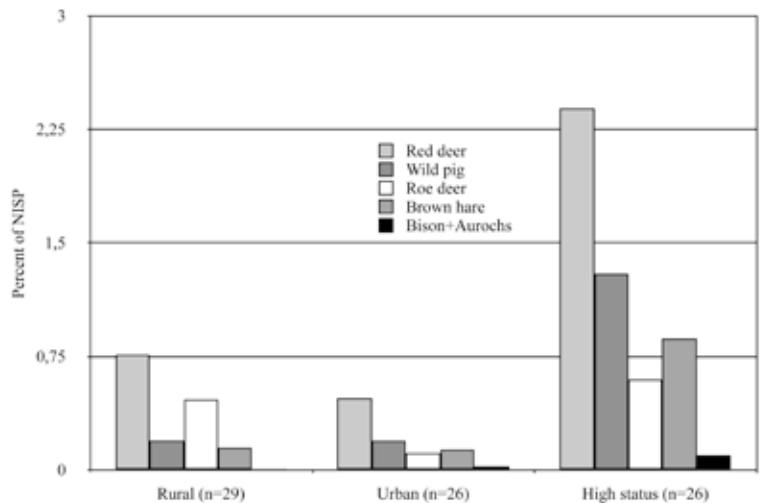


Fig. 9: The contribution of major game to different medieval settlement materials in Hungary

in Keszei's book. When compared to Figure 8, fallow deer is the only species missing, imported after the time when medieval deposits accumulated. The trend is similar in present-day Belgium (Ervynck et al. 1999: 403), but is in contrast with England, where 11-12th century osteological evidence for fallow deer is linked to the Norman Conquest (Dobney and Harwood 1999: 382; Sykes 2004).

Difficulties are posed when the remains of rare local species are sought after. Since the contribution of even common game tends to be small, comparisons between these sub-assemblages may be heavily biased, since the number of species would reflect the number of bones available for analysis rather than culturally idiosyncratic patterns in hunting (Grayson 1984: 136-137).

A quick look at the rare game species in Keszei's book reveals that no bone finds of chamois and ibex are known from Hungary (this may be explained by the lack of mountains within the 20th century borders). The same holds true to marmot. Archaeologically, elk is also little known, but was hunted in neighbouring hilly areas (Bartosiewicz 2005a). Elk, however, has a broad geographical range, stragglers cover long distances. Four such individuals were killed in Hungary between 1979 and 1981 (Topál and Vörös 1984: 83).

Aurochs, a common prehistoric game, became rare in the Roman province of Pannonia and became extinct in the territory of present-day Hungary by the late Middle Ages (Bartosiewicz 1999b: 82). Its latest bone finds were identified at the rural settlement of 9–10th century

deposits at Zalavár-Vár, Western Hungary (25/3968 NISP, pooled; Vörös 1985: 196, Table 1) and at the 11th–13th century rural settlement of Csongrád–Felgyő (1/124 NISP) in the Great Hungarian Plain (Bökönyi 1974: 355). Medieval aurochs have been mentioned from a dozen sites in present-day Romania (Bejenaru 2003: 155).

Remains of bison occurred but sporadically in Hungary during Holocene times. Medieval finds came to light exclusively at high status sites, the 10–11th century urban settlement of Esztergom–Szentgyörgymező, Northern Hungary (4/3625 NISP) and the 10th–12th century bailiff's seat in Szabolcs (2/654 NISP) in the northeast (Bartosiewicz 1999a: Tables 5- 6). The latest specimen is known from 15th–17th century Nagykanizsa Castle, Western Hungary (3/2049 NISP; Bökönyi 1974: 384). In addition to the social importance of these sites, they were all established within ecotones between the plain and hills. In Romania a 10th century skeleton was reported from Peştera Plavii (Caraş-Severin county) and the skull of an adult female from Cetatea Muşatinilor de la Roman (Bejenaru 2003: 153). West of Hungary, over 150 bison remains were identified at the 9th–10th century castle of Flur auf der Sand in the foothill area near Oberpfaffendorf, Lower Austria (Pucher and Schmitzberger 1999: 118; 5% of 3170 NISP). The dominance of early finds shows the diachronic decline of bison stocks in the entire region.

To be fair to Keszei's translation, it must be mentioned that bones of domestic water buffalo co-occurred with those of bison in 15th–17th century Nagykanizsa Castle (1/2049 NISP; Bökönyi 1974: 384), although earlier finds were reported from the 14th–15th century layers of the Buda Royal Palace (3/3548 NISP; Bartosiewicz 1999a: Table 6). According to Benecke (1994a: 287; 1994b: 185–186) both medieval finds of and historic references to water buffalo are scarce all over Central and Western Europe.

No medieval elk remains are known from present-day Hungary. Sporadic bones occurred at Flur auf der Sand in Lower Austria (Pucher and Schmitzberger 1999: 112; 0.4% of 3170 NISP). A single find was reported from the lowlands of Romania, although elk was still mentioned as royal game in mountainous Transylvania in the 16th century (Bejenaru 2003: 150).

Beaver is usually interpreted as a fur-bearing animal in archaeozoological publications. It was common in

Hungary until the 19th century, but is rarely reported from medieval settlements. However, 17th century Bajcsavár, a fort manned by Germanic mercenaries on the eastern border of the Hungarian Kingdom (Bartosiewicz 2005b: 112, Figs. 377–379), yielded quantities of beaver bones. Although beaver remains were identified in the 17th century Carthusian monastery at Mauerbach (Lower Austria) as a well known Lenten food (Galik and Kunst 2004: 226, Fig. 2), they may have been consumed on other, secular occasions as well.

While rabbit bones found in Britain may be the remains of intrusive individuals, the first evidence of rabbit consumption at high status settlement dates to the 12th century (Dobney and Harwood 1999: 380). The first historic evidence for the import of rabbits into Germany is a document from the Corvey monastery, dated 1149. Other sources show introduction to the North Sea islands Amrum and Juist in 1230. These references are backed by single bone finds from Germany, the Netherlands and Denmark (Benecke 1994a: 356–361; 1994b: 184, 378–379; Grimm 2006a: 19; 2006b: 15, Küchelmann in prep.). It is unknown when wild or domestic rabbits reached Hungary, but the 16th–17th centuries are a possible time of introduction (Vörös 2003: 73). The earliest osteological evidence dates to the 16th century, listed among game from the site of Visegrád–Salamon-torony (Bökönyi 1974: 429), reflecting the small morphological and conceptual difference between the domestic and wild forms.

Bones of squirrel are rarely reported from Hungary, probably owing to their small size and inevitably poor recovery. Bökönyi (1974: 426), however, identified this small rodent in a 14–15th century deposit at the site of Visegrád–Royal Palace (2/3871 NISP). Sporadic finds (below 0.03% of 3170 NISP) from 9th–10th century Flur auf der Sand in Lower Austria (Pucher and Schmitzberger 1999: 119) were interpreted as evidence of fur exploitation.

Brown bear is rare at medieval sites in Hungary. It has been reported from 9th–10th century deposits at Zalavár–Vár (3/3968 NISP, pooled; Vörös 1985: 196) and 10th–11th century Esztergom–Szentgyörgymező (1/3625 NISP; Bartosiewicz 1999a: Table 5) as well as similarly 9th–10th century Flur auf der Sand in Lower Austria (Pucher and Schmitzberger 1999: 119). Note that remains of wild bovines were also recovered at these high status sites. Later bear finds include remains from 14th–15th century Visegrád–Royal Palace (5/3871 NISP; Bökönyi 1974: 426) and contemporaneous

Buda Castle (1/58 NISP; Bartosiewicz 1999a: Table 6). Unfortunately, no skeletal part is specified in these publications. Bones of bear paws were reported from deposits associated with food consumption in Poland (Dembinska 1999: 95), that fall in line with Keszei's recipe. A bear scapula published from the 14th–15th century religious center at Siret in Romanian Moldova (1/1054 NISP; Haimovici et al. 1993: 318–319) seems linked with the consumption of bear. Medieval bear remains are known only from two additional sites in Romania, Baia (also in Moldova) and Banat-Berzovia in the west of the country (Bejenaru 2003: 153, Figure 66). Dembinska (1999: 95) also mentions bear bacon and smoked bear tongue as delicacies. They would offer, however, little osteological evidence.

Finds of marine animals inland best demonstrate regional exchange (e.g. Crabtree 1990: 157–8, 170–1; Morales Muñiz 1997: 14). Food refuse from marine mammals, however, is yet to be recovered in land-locked Hungary. Porpoise is represented by single finds in medieval North and West European coastal contexts. Two specimens were found in a 15th century monastery at Norden, North Germany (Küchelmann in prep.). Others were reported from England, e. g. from the Norwich cathedral refectory (2/1830 NISP; Curl 2006: 75–76), a duke's manor in Norwich (Curl, personal communication), Lewes Priory in Sussex (n= 5), in London (n= 1) and at Oxford Castle (n= 1; Gardiner 1997: 188–191). These are high status assemblages, either noble or religious. Historic sources document porpoise hunting from the 9th century onwards. Specialised guilds were established in Belgium, France and Denmark in the 10th century (Barthelmeß 1992: 11–13; Curl 2006: 76; Gardiner 1997; Mulville 2002) indicating the status of porpoise meat as luxury and Lenten food.

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Conclusions

Early Modern Age cookbooks reflect upper-class cooking (Adamson 2004: 72). This is apparent in the species composition and ranking of game in the work dedicated to Anna Bornemisza. Feasting is not simply material consumption, but also a “total social fact” (*sensu* Maurice Leenhardt), an activity in which aspects of psychological and social life are interwoven, and that has implications throughout the economic, legal, political, and religious spheres (Edgar 2002:157; Sedgewick 2002: 95). Even if our study is limited to the analysis of consuming game in a narrowly defined social circle, these implications are evident in the value, accessibility and religious/ideological treatment of the identified animals.

The cookbook of Anna Bornemisza is partially comparable to the medieval archaeozoological record. Although identification for a few animals in the cookbook remains contradictory, the majority were recognized, partly through studying the original German version by Rumpolt. The analysis revealed medieval attitudes to the animal world in terms of taxonomy, nomenclature and the concepts of domestic versus wild as well as mundane versus exotic, although by the Early Modern Age increasing availability through colonisation as well as the access of elites to firearms must have impacted upon the perception of animals.

While food remains from exotic animals are yet to be found at archaeological sites in Hungary, the occurrences and even proportions of the most common species are reflected in find materials from medieval high status settlements. “High status” in this respect means the greatest dependence on meat provisioning by rural populations. On the other hand, as a probable result of hunting privileges, game played a somewhat greater role in meat consumption at these sites (Bartosiewicz 1999a: 142). In spite of their small contribution, bones from wild mammals reflect trends in game exploitation emerging from the abridged translation of Rumpolt's 16th century German cookbook from 17th century Transylvania.



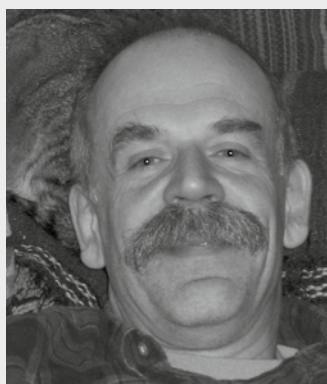
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