

Is the wisent (*Bison bonasus*) indigenous to the Netherlands and Belgium?

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Abstract: Some documents claim that the wisent (*Bison bonasus*) was present in north-western Europe during the Middle Ages. With the introduction of the wisent into Dutch nature management these claims are being repeated again. This article examines these claims and whether they tally. Bone finds would indisputably prove the former existence of the wisent in the Netherlands and Belgium. Records of bone finds show wisent did occur in north-western Europe in the Early Holocene, but no demonstrable wisent bones from the Middle and Late Holocene have been found in this area. The distribution of wisent bone finds in Europe shows that *Bison bonasus* mainly lived in central and eastern Europe. The spread of wisent toponyms in Germany also seems to reflect the preference of the wisent for a continental climate. This paper examines the written sources that make claims for the occurrence of the wisent in the Middle Ages in southern Sweden, England, Belgium and the Netherlands. It is clear that there are no reliable data. The claims partly arose due to name confusion with aurochs (*Bos primigenius*), partly through inaccurate interpretations of texts, and partly by people simply advancing unsubstantiated assertions. If the wisent occurred in the Netherlands and Belgium in the Middle and Late Holocene, it must have been just a rare vagrant, not a resident species.

Keywords: wisent, *Bison bonasus*, aurochs, *Bos primigenius*, archaeozoology, philology, occurrence, Belgium, the Netherlands.

Introduction

The wisent (or European bison, *Bison bonasus*) is increasingly playing a role in Dutch nature management. In 2007 some individuals were introduced into the Kraansvlak nature reserve near Zandvoort, in the Province of North Holland (Smit et al. 2008, Janssen 2015, and www.wisent.nl) and there are currently plans to release wisents close to Kootwijk, in the Veluwe area (Kas 2014, Janssen 2015, and www.wisentopdeveluwe.nl). The rationale is that they are effective grazers, in need of conservation – as they are still an endangered species - and will attract tourists.

This introduction of the wisent is backed

up by the proposition that this animal was unquestionably part of the Netherlands' native fauna during the Middle and Late Holocene. It is claimed that this animal was not only native to the Netherlands, but also that it lived in southern Sweden in the 11th century, in England during the 12th century and in the Ardennes (Belgium / Luxembourg) during the 14th century (for these claims see the websites referred to above, Pucek 1986 and Janssen 2015). In the Netherlands, *Bison bonasus* bones have been dredged up off of the North Sea coast (Drees & Post 2007) and it is claimed that even 'about 1000 years' ago, the animal was still present here (Smit et al. 2008, Janssen 2015). However very few supporting arguments have been put forward by the authors of the texts cited above and it is worth enquiring where these claims come from and whether they actually tally.

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Method

To find out whether and when *Bison bonasus* occurred in the Netherlands and Belgium during the Holocene, I have searched written sources for mentions of wisent bones and of the occurrence of the wisent, and explored BoneInfo (<http://archeologiein nederland.nl/bronnen-en-kaarten/boneinfo>), the archaeological database.

Results

Bones

There are nearly no finds of wisent bone material from the Netherlands and Belgium from the Holocene, and in the Netherlands there are no finds from the Middle and Late Holocene (Zeiler & Kooistra 1998, Louwe Kooijmans 2012, BoneInfo)¹. It is only from the transition period between the Late Pleistocene and Early Holocene that a number of bones (of which 14 metacarpi were investigated) were found in the Dutch part of the North Sea, which are all attributed to *Bison bonasus* (Drees & Post 2007). These belong to a small type of *Bison bonasus*, much smaller than the steppe bison (*Bison priscus*) which frequently occurred on the steppes of our regions during the last ice age. This *Bison bonasus*, which lived on the plains that are now covered by the North Sea, was significantly smaller than the today's wisent (Drees & Post 2007). Remains of *Bison bonasus* from the Early Holocene have also been found in Denmark (Degerbøl & Iversen 1945: Late Dryas) and Sweden (Ekström 1993: 8700 BP). As in the Netherlands, no more recent wisent bones have been found in these countries (Benecke 2005).

In Germany, wisent remains from the first centuries AD have been found in the former Roman town of Colonia Ulpia Traiana (nowadays: Xanten, about 20 km from the Dutch border) (Clason 1977, Krämer & Nolde 2012). However, since the Romans transported many large animals from afar for gladiatorial displays in their arenas (there was an arena in Colonia Ulpia Traiana) these wisents did not necessarily come from a local population.

Heinzelin et al. (1984) published the discovery of what they considered to be a fragment of a *Bison bonasus* bone found by the Scheldt river near Tournai (Belgium). This record was subsequently discussed by Van Alsté (1989). The bone fragment from the Scheldt river is the distal part of a humerus and was found in a fluvial deposit together with ceramic, leather and iron remnants from the Iron Age (650-450 BC) and the Gallo-Roman period (50-200 AD). In Belgium, no other *Bison bonasus* finds have been recorded (A. Eryvynck, personal communication). The bone was determined on the basis of diagnostic features, set out by Stampfli (1963), but the method employed proved to be cumbersome (A. Gautier, personal communication). As such the determination that this was a wisent remains questionable.

There has been a long and ongoing debate about whether it is possible to distinguish wisent (*Bison bonasus*) from aurochs (*Bos primigenius*) on the basis of bones. Olsen (1960), whom Drees & Post (2007) relied on, compared the bones of *Bison bison* with those of domestic cattle *Bos taurus* and *Bos indicus*. Stampfli (1963) compared the bones of *Bison bonasus* and aurochs from a Swiss site from the third millennium BC and explained the ongoing discussion among specialists, concerning the determination of, in this case, that part of the humerus. Some (e.g. Wright 2013) consider it completely impossible to arrive at a decisive identification of a species on the basis of a single postcranial bone. Others (e.g. Stampfli 1963) argue this is possible, but is nevertheless difficult. Stampfli also mentions

¹ The Holocene can be roughly subdivided into Early Holocene (10,000-6,000 BC), Middle Holocene (6,000-1,000 BC) and Late Holocene (1,000 BC-today).

that a 'typical *Bison* structure' can quite often ('öfter') be seen in the bones of large domestic cattle. Wright (2013), in an extensive research on bone characteristics, concludes that only a substantial number of *complete* postcranial bones, and preferably the cranium itself, can give a definite answer. The close relationship between the two species, the age of the animal, intraspecies variation and sexual dimorphism can further confuse identification.

On Mesolithic and Neolithic sites in the Netherlands, many skull fragments, horn cores and horn sheaths of aurochs (*Bos primigenius*) have been found, and from 4400 BC also those of domestic cattle. Aurochs bones have been found both as catch in human settlements and as stray finds. Some of these bones have been determined to species on the basis of mtDNA. However no wisent skull fragment or other larger intact bones from the Middle or Late Holocene have been found in the Netherlands.

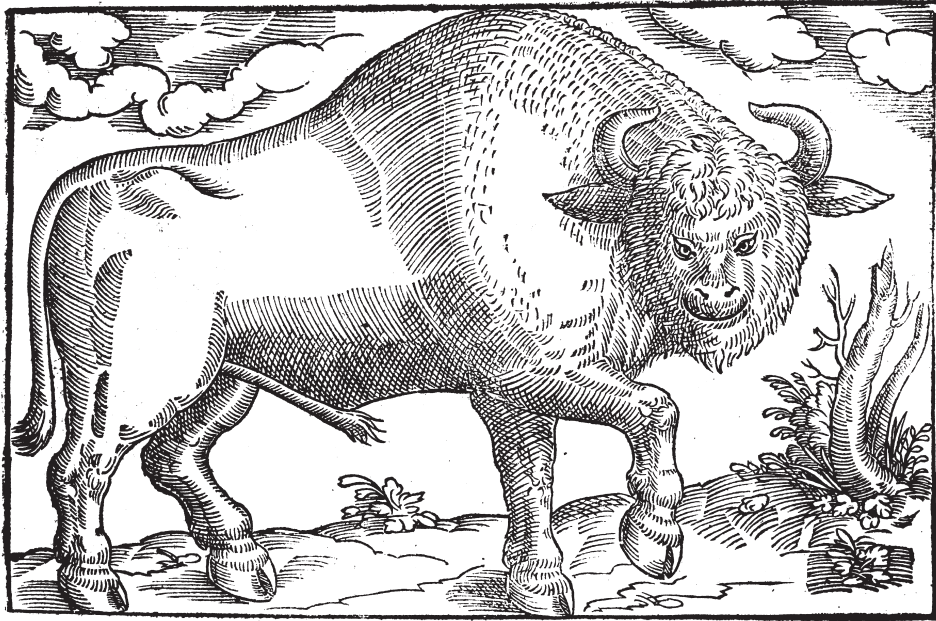
Written sources

The allegations that *Bison bonasus* lived for a very long time in England, southern Sweden and the Ardennes regularly circulated in the 20th century, and still do so. Pucek (1986) summarised them in a comprehensive treatise on various aspects of the wisent; in a paper that has been cited by many authors. It is striking that these allegations were factually debunked long ago, but are nevertheless still passed on as reliable data, without being checked. Because these claims are not supported by bone finds, their origin must lie in ancient texts, or in the imagination of the storyteller.

In the early 20th century, the historical zoologist Szalay (1915, 1917, 1938) occupied himself for decades with searching and interpreting ancient texts, which might provide evidence of the former occurrence of wisent, aurochs and other large mammals in Europe. A key aspect of this task was recog-

nising the different names given to these animals. The different names given caused much confusion. Aurochs were given two different names 'urus' and 'bubalus'. In the Latin language, 'bubalus' was the original name of the aurochs. When Julius Caesar conquered parts of Germania in 58-52 BC, the Germanic name of the aurochs ('ur') was latinised to 'urus'. In the 19th and the early 20th centuries, many authors, not aware of the difference between the two bovine species, misinterpreted the term 'bubalus' as a designation of the wisent. The Romans themselves called the wisent 'bison', another word borrowed from the Germanic. This is the first name confusion which must be taken into account. The second has to do with the fact that, in the late Middle Ages, the original Germanic word 'ur' changed into 'auer' and later into 'aurochs'. Actually, 'auer(ochs)' was never used for the original aurochs (*Bos primigenius*), but only for the wisent (*Bison bonasus*) (Szalay 1938). During the 13th century, about the time the aurochs became extinct in German-speaking regions (apart from East Prussia), the name 'ur', which originally related to the aurochs, was passed on in an altered form ('auer(ochs')) to the wisent (figure 1). Until well into the 19th century, the wisent was called 'auer(ochs)' in Germany. From the late 19th century, when people started to realise that aurochs and wisent were two different species – after the explanatory study by Wrześniowski (1878) – the original name of the wisent was re-established.

The idea that the wisent was still extant in southern Sweden in the 11th century, comes from a text in a book by Adam von Bremen (Bremen & Laurent 1893) which outlines the history of northern Europe in the late 11th century. In this book it is claimed that 'uri bubali et elaces' were captured in 'Sueonia' (southern Sweden), and 'bisontes' in 'Sclavonia et Ruzzia' (regions in eastern Europe). Here 'uri bubali' indicates aurochs, and 'elaces' elk. Although Von Bremen situated wisents somewhere in eastern Europe, his description is so vague that it is of little value. In any case, he did not



1595.
 Ein Preuscher Auhrochs.

Figure 1. One of the earliest known illustrations of a wisent to appear in print. It depicts a wisent ('Ein Preuscher Auhrochs') in former East Prussia. From Hennenberger (1595).

mention wisents ('bisontes') in southern Sweden. Some authors, such as Genthe (1918), mistook Von Bremen's 'bubali' as wisents, or misread the text, and mentioned wisents in southern Sweden in the 11th century.

The idea that the wisent occurred in England in the 12th century goes back to a text by Genthe (1918). He wrote that 'probably in the 12th century there was evidence of wisents in England' but produced no further proof of this. According to Szalay (1938) he got this from a passage about the occurrence of aurochs and wisent in Europe in an article by Struckmann (1882). Struckmann was also misled by the name confusion and claimed (among other things) that the aurochs 'became extinct in England only in the 12th century', although he did not provide any evidence for this. As mentioned before, Genthe also misinterpreted Von Bremen's description.

Similarly, the existence of the wisent in the Ardennes in the 14th century, cannot be found in any reliable written source (Szalay 1938). The 'bubalus', or aurochs, was mentioned in

a narrative of a hunt in the surroundings of Aachen in the 9th century, but there are no more mentions of them since then. How the claim on the occurrence of the wisent in the Ardennes in the 14th century came about, can be explained as follows. Szalay (1917) stated that there is no mention of aurochs or wisent in the entire French hunting literature and hunting poetry from the 12th to the 16th centuries. As an example he cited the renowned hunting book by Gaston Phoebus (from around 1388), where all the big hunting game of France (which then included the Ardennes), was described (Phoebus 1931). From Szalay's statement in 1917, Genthe (1918) concluded that 'around 1400' the wisent no longer existed in France, because Phoebus did not mention it. From Genthe's assertion, Sztolcman (1924) then concluded that 'the wisent disappeared in France in the 14th century'. Pucek (1986) adopted Genthe's and Sztolcman's view and concluded that the wisent became extinct 'in north-east France (Ardennes, Vosges)' by the end of the 14th century.

What still remains unexplained is the origin of the statement that the wisent still occurred in the Netherlands 'about 1000 years' ago. There are no bone finds to confirm this and the occurrence of this animal is not mentioned in any ancient texts. The explanation probably lies in the mention of the only Dutch wisent toponym 'wisenthurst' ('wisent hurst') dated back to 1145 AD and found near Gendringen on the Dutch-German border (Gysseling 1960, de Vries 1962, van Vuure 1984, Philippa et al. 2009). In different texts, this name was also written as 'wesenthorst', 'wezenhorst' and 'wisenhurs'. A wisent toponym may indicate the previous occurrence of the wisent there, irrespective of whether this animal was rare or common. It may indicate the former regular occurrence of this animal, but it could also mean that people immortalised a one-off encounter with an exceptional and rare animal species. Some years ago, a (still) unknown author, presumably not realising the meaning of a toponym, understood the year of the mention of this toponym as indicating the time of occurrence of the wisent there, and for convenience made 'about 1000 years' ago from it. However, toponyms may exist for centuries before being mentioned in documents.

Bone finds elsewhere in Europe

Unlike in Belgium and the Netherlands, a relatively large number of *Bison bonasus* bones have been found in central and eastern Europe. Nevertheless, judging by the number of bones in relation to those of red deer (*Cervus elaphus*), wild boar (*Sus scrofa*) or roe deer (*Capreolus capreolus*), this animal must have occurred there in relatively low densities. As more wisent bone finds become known in Europe, the image of its distribution area is becoming increasingly clear. Benecke (2005) brought the bone finds of the wisent together in a map, which was further supplemented by Kuemmerle et al. (2012) with finds in east-

ern Europe derived from Heptner et al. (1961) (figure 2). This map shows that the wisent hardly occurred in western and southern Europe. Although wisents lived in the steppes and forest steppes of southern Russia, they were not present in the vast steppes east of Volgograd (Heptner et al. 1989) where one would expect them to have lived in large numbers. The wisent probably descends from a steppe dweller such as the steppe bison (*Bison priscus*) and is closely related to another steppe dweller, the American bison (*Bison bison*). Even the so-called forest bison (*Bison bison athabascae*), which can still be found in central Canada, does not actually like forests as such, but usually lives in extensive grass and sedge marshes within the surrounding forests (Carbyn et al. 1993).

At present the (natural) food and habitat choice of the wisent is not fully known, and discussions about this are still going on (Kowalczyk et al. 2011, Kerley et al. 2012, Bocherens et al. 2015).

Discussion

In theory, the lack of reliable bone material of *Bison bonasus* in the Netherlands and Belgium, from the Middle and Late Holocene, does not mean that the animal did not occur here: absence of evidence is not evidence of absence. But given that archaeological research in these countries is long and well established, that the conditions for finding bones are often excellent, and that many bones of the wisent have been found in central and eastern Europe, one can tentatively draw the conclusion that this animal was not a resident species in the Netherlands and Belgium during the Middle and Late Holocene. Only bones (of an apparently small subspecies) of *Bison bonasus* from the Late Pleistocene / Early Holocene have ever been found in the Dutch portion of the North Sea. If the wisent regularly occurred in the Netherlands and Belgium during the Middle and Late-

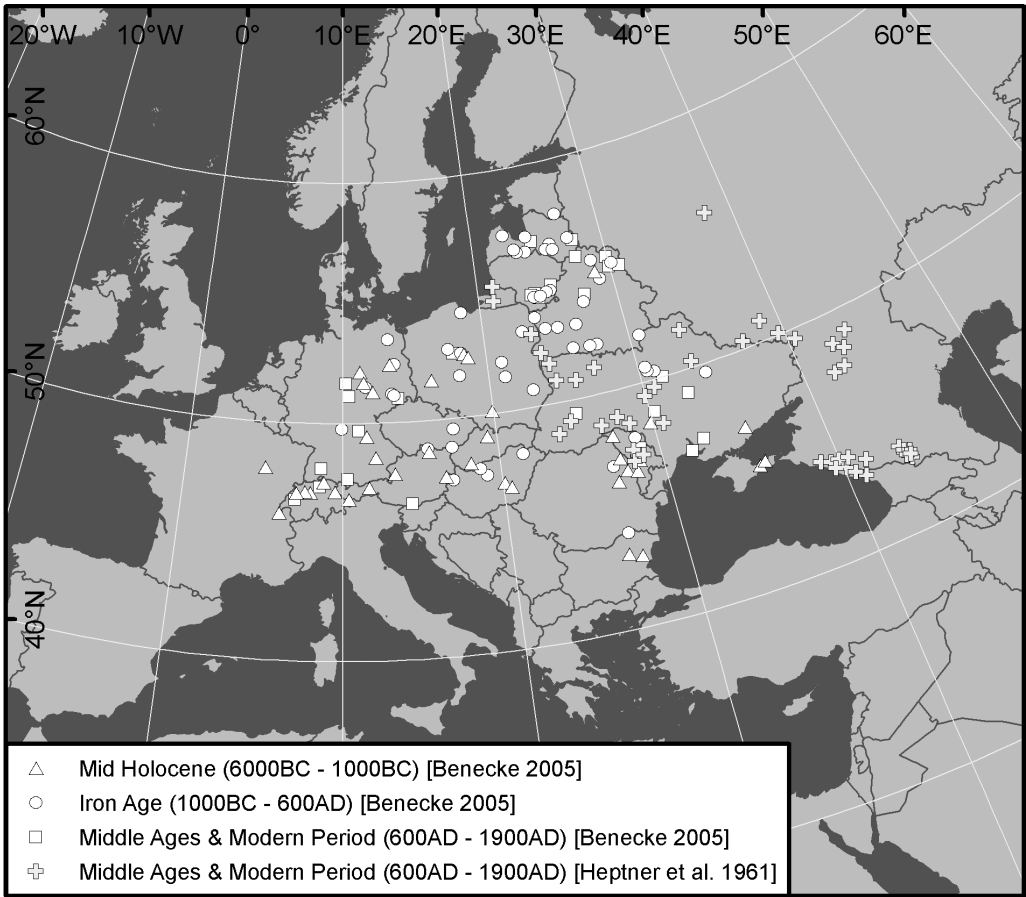


Figure 2. Distribution of bone finds of the wisent (*Bison bonasus*) in Europe from the Middle and Late Holocene (source: Kuemmerle et al. (2012); with permission of the author and publisher) © 2011 Blackwell Publishing Ltd.

Holocene, some of its bones should have been found here. The knowledge to correctly determine wisent bones, the financial resources to carry out archaeological excavations and the find conditions for bones in western Europe are certainly not any less or worse than in central and eastern Europe.

It is also noteworthy that Szalay (1915), on the basis of wisent toponyms, concluded that wisents probably only occurred very occasionally, at best, in western Europe. In England and Belgium no certain wisent toponyms have been found. In France, only one reasonably certain wisent toponym, 'wisinth-ovua' ('wisent river meadow') has been found,

in NE Alsace, in the northeast of the country. Whereas wisent toponyms are hardly found in western Europe, they are more commonly found in Germany. Here there is a certain gradient in toponym density. In the northern half of the country only about five toponyms have been found, in contrast with about 25 in the southern half (Szalay 1915). Whether this also points to a preference for a continental climate remains questionable.

If wisent did occur in the Netherlands and Belgium during the Middle and Late Holocene, this was only because it occasionally crossed the 'German' border. We can assume that it was extremely rare in Belgium and

the Netherlands. Possibly only wandering bulls showed up; wisent bulls are renowned for covering large distances, of up to 350 km (Kraśińska & Kraśiński 2007). For one reason or another the wisent did not thrive in north-western Europe. During the Early Holocene, the North and the Baltic seas were dry - there was a different, more continental climate, a different vegetation and a different composition of animal species.

The climate in the range of the wisent, as shown in the map by Kuemmerle et al. (2012), is continental by nature, with warm summers and cold winters. The wisent's possible dislike of a maritime climate maybe explains why it did not occur much in north-western Europe, although there are other possible reasons (habitat fragmentation by the formation of islands in southern Scandinavia, food availability or competition with other animal species). This question is one for future exploration.

Conclusions

Research has been done into the validity of the claim of whether the wisent (*Bison bonasus*) is indigenous to the Netherlands and Belgium. Here I have examined the allegations that the wisent was present up until the Middle Ages in north-western Europe, including the Netherlands and Belgium, by using archaeozoological records of bone finds and (alleged) mentions of the wisent in written sources. In the Netherlands and Belgium, there are no (reliable) bone finds of the wisent from the Middle and Late Holocene, and the mentions in written sources turn out to be misinterpreted and / or unfounded. Only one single wisent toponym might indicate a presence of the wisent in the east of the Netherlands at this time. From bone finds of the wisent in Europe it can be concluded that the wisent's range was mainly in central and eastern Europe.

It should be concluded that while the wisent may have occurred regularly in the Nether-

lands and Belgium during the Early Holocene, after that time it was no longer a resident species there. Given the finds of wisent bones elsewhere in Europe, the wisent rather seems to have been, at most, a rare vagrant in the Netherlands and Belgium.

Acknowledgements: I thank Anton Eryvynck and Achilles Gautier for their help in searching and judging the supposed Belgian wisent bone fragment, and all the reviewers of the manuscript and the English language editor for their constructive criticism.

References

- Benecke, N. 2005. The holocene distribution of European bison – the archaeozoological record. *Munibe (Antropologia – Arkeologia)* 57: 421-428.
- Bocherens, H., E. Hofman-Kamińska, D.G. Drucker, U. Schmölcke & R. Kowalczyk 2015. European bison as a refugee species? Evidence from isotopic data on Early Holocene bison and other large herbivores in Northern Europe. *PLoS ONE* 10 (2): e0115090. Doi:10.1371/journal.pone.0115090.
- Carbyn, L.N., S.M. Oosenbrug & D.W. Anions 1993. Wolves, bison....and the dynamics related to the Peace-Athabasca Delta in Canada's Wood Buffalo National Park. *Circumpolar Research Series* nr 4. University of Alberta, Edmonton, Canada.
- Clason, A.T. 1977. *Jacht en veeteelt van prehistorie tot middeleeuwen*. Fibula-Van Dishoeck, Haarlem, the Netherlands.
- Degerbøl, M. & J. Iversen 1945. The bison in Denmark. *Danmarks Geologiske Undersøgelse (Raekke 2)* 73: 1-62.
- de Vries, J. 1962. *Woordenboek der Noord- en Zuidnederlandse plaatsnamen*. Het Spectrum, Utrecht, the Netherlands.
- Drees, M. & K. Post 2007. *Bison bonasus* from the North Sea, the Netherlands. *Cranium* 24 (2): 48-51.
- Ekström, J. 1993. *The Late Quaternary History of the Urus (Bos primigenius Bojanus 1827) in Sweden*. Lundqua Thesis 29. Lund University, Lund, Sweden.
- Genthe, F. 1918. *Die Geschichte des Wisents in Europa*. *Bialowies in deutscher Verwaltung* 3: 119-140.

- Gysseling, M. 1960. Toponymisch woordenboek van België, Nederland, Noord-Frankrijk en West-Duitsland (vóór 1226). Deel II. Belgisch Interuniversitair Centrum voor Neerlandistiek, Brussel, Belgium.
- Heinzelin, J. de, J. de Coninck, A. Gautier, E. Gilot & J. Heim 1984. La Vallée de l'Escaut à Pont-A-Chin. *Annales de la Société Géologique de Belgique* 107: 89-101.
- Hennenberger, C. 1595. Erclerüg der Preussischen grössern Landtaffel oder Mappen. Gedruckt zu Königsberg in Preussen / Bey Georgen Osterbergern.
- Heptner, V.G., A.A. Nasimovich & A.G. Bannikov 1961. Mammals of the Soviet Union. Volume I: Artiodactyla and Perissodactyla. Amerind Publishing, New Delhi, India. [in Russian]
- Heptner, V.G., A.A. Nasimovich & A.G. Bannikov 1989. Mammals of the Soviet Union. Volume I: Ungulates. E.J. Brill, Leiden, the Netherlands.
- Janssen, C. 2015. De wisent. *De Volkskrant*, 14 maart 2015: 48-49.
- Kas, J. 2014. De Veluwe wordt beetje wilder. *Amersfoortse Courant. Regio-Amersfoort*, July 24: 4.
- Kerley, G.I.H., R. Kowalczyk & J.P.G.M. Cromsigt 2012. Conservation implications of the refugee species concept and the European bison: king of the forest or refugee in a marginal habitat? *Ecography* 35: 519-529.
- Kowalczyk, R., P. Taberlet, E. Coissac, A. Valentini, C. Miquel, T. Kamiński & J.M. Wójcik 2011. Influence of management practises on large herbivore diet – Case of European bison in Białowieża Primeval Forest (Poland). *Forest Ecology and Management* 261: 821-828.
- Krämer, J. & N. Nolde 2012. Die Befunde und Funde von *Insula 15* in der *Colonia Ulpia Traiana*. *Xantener Berichte* 24: 57-197. Verlag Philipp von Zabern, Darmstadt/Mainz, Germany.
- Krasińska, M. & Z.A. Krasiński 2007. *European Bison – The Nature Monograph*. Mammal Research Institute, Polish Academy of Sciences, Białowieża, Poland.
- Kuemmerle, T., T. Hickler, J. Olofsson, G. Schurgers & V.C. Radeloff 2012. Reconstructing range dynamics and range fragmentation of European bison for the last 8000 years. *Diversity and Distributions* 18: 47-59.
- Louwe Kooijmans, L.P. 2012. Holland op zijn wildst? De Vera-hypothese getoetst aan de prehistorie. *De Levende Natuur* 113 (2): 62-66.
- Olsen, S.J. 1960. Post-cranial skeletal characters of *Bison* and *Bos*. *Papers of the Peabody Museum of Archaeology and Ethnology* 35 (4). Harvard University, Cambridge, MA, USA.
- Philippa, M., F. Debrabandere, A. Quak, T. Schoonheim & N. van der Sijs (eds.) 2009. *Etymologisch woordenboek van het Nederlands*. Deel 4: S-Z. Amsterdam University Press. Amsterdam, the Netherlands.
- Phoebus, G. 1931. *Le livre de la chasse. Maîtres de la vénerie*: vol. 2. E. Nourry, Paris, France.
- Pucek, Z. 1986. *Bison bonasus* (Linnaeus, 1758) – Wisent. In: J. Niethammer & F. Krapp (eds.). *Handbuch der Säugetiere Europas*. Band 2/II, Paarhufer: 278-315. Aula-Verlag, Wiesbaden, Germany.
- Smit, C., J. Dekker & J. Cromsigt 2008. Ruimte voor de wisent in de lage landen. *De Levende Natuur* 109 (1): 32-33.
- Stampfli, H. 1963. Wisent, *Bison bonasus* (Linné), 1758, Ur, *Bos primigenius* Bojanus, 1827, und Hausrind, *Bos taurus* (Linné), 1758. In: J. Boessneck, J.-P. Jéquier & H.R. Stampfli (eds.). *Seeberg, Burgäschisee-Süd. Teil 3: Die Tierreste*. *Acta Bernensia II*. Verlag Stämpfli & Cie, Bern, Switzerland.
- Struckmann, C. 1882. Über die Veränderungen in der geographischen Verbreitung der höheren wildlebenden Tiere im mittleren Europa und speziell in Deutschland seit der älteren Quartärzeit bis zur Gegenwart. *Zeitschrift für wissenschaftliche Geographie* 3: 173-183.
- Szalay, A.B. 1915. Der Wisent in Ortsnamen. *Zoologische Annalen* 7 (1): 1-80.
- Szalay, A.B. 1917. Wisente im Zwinger. *Zoologischer Beobachter LVIII*: 144-150.
- Szalay, A.B. 1938. *Hundert irrige Wisentbelege*. Verlag J. Neumann, Neudamm, Germany.
- Sztolcman, J. 1924. Matériaux pour l'histoire naturelle et pour l'historique du Bison d'Europe (*Bison bonasus* Linné). *Annales Zoologici Musei Polonici Historiae Naturalis*. Tom II, *Zeszyt 3-4*: 49-136.
- van Alsté, H. 1989. Wisenten in Nederland, feit of fictie? Een onderzoek naar het inheemse karakter

- van de wisent (*Bison bonasus*) in Nederland. Verslag nr. 1052. Landbouwniversiteit Wageningen, the Netherlands.
- van Vuure, T. 1984. Een wisenttoponiem in Nederland. *Huid en Haar* 3 (1): 1-4.
- von Bremen, A. & J.C.M. Laurent 1893. Adam's von Bremen Hamburgische Kirchengeschichte. Dyk, Leipzig, Germany.
- Wright, E. 2013. The history of the European aurochs (*Bos primigenius*) from the Middle Pleistocene to its extinction: an archaeological investigation of its evolution, morphological variability and response to human exploitation. PhD thesis. Department of Archaeology, University of Sheffield, UK.
- Wrześniowski, A. 1878. Studien zur Geschichte des polnischen Tur. *Zeitschrift für Wissenschaftliche Zoologie* 30, Supplement 45: 493-555.
- Zeiler, J.T. & L.I. Kooistra 1998. Parklandschap of oerbos? Interpretatie van het prehistorische landschap op basis van dieren- en plantenresten. *Lutra* 40 (2): 65-76.

Samenvatting

Is de wisent (*Bison bonasus*) inheems in Nederland en België?

Diverse bronnen behandelen het (mogelijke) voorkomen van de wisent (*Bison bonasus*) in de Middeleeuwen in Noordwest-Europa, te weten Zuid-Zweden, Engeland, België en Nederland. Botvondsten zouden onmiskenbaar wijzen op de vroegere aanwezigheid van *Bison bonasus* in Nederland en België. De

motivering voor de introductie van de wisent in het kader van het natuurbeheer in Nederland is onder meer op deze gegevens gebaseerd. In dit artikel wordt nagegaan waar de vermelde beweringen vandaan komen en of ze feitelijk kloppen.

Wat de vermelde botvondsten betreft, blijkt dat er in het Vroeg-Holoceen nog wel wisenten in Noordwest-Europa voorkwamen, maar dat daar later, uit het Midden- en Laat-Holoceen, geen aantoonbare wisentbotten gevonden zijn. Uit de verspreiding van botvondsten van de wisent elders in Europa blijkt dat *Bison bonasus* vooral in Centraal- en Oost-Europa leefde. Ook de verspreiding van wisenttoponiemen in Duitsland lijkt een voorkeur van de wisent voor een continentaal klimaat te weerspiegelen.

In geschreven bronnen is nagegaan of er gegevens te vinden zijn over het voorkomen van de wisent tot in de Middeleeuwen in Zuid-Zweden, Engeland, Nederland en België. Gebleken is dat er dienaangaande geen betrouwbare gegevens te vinden zijn. De onderzochte beweringen zijn deels tot stand gekomen door naamsverwarring met de oeros (*Bos primigenius*), deels door verkeerde interpretatie van teksten, en deels door het doen van ongefundeerde beweringen.

Als de wisent in het Midden- en Laat-Holoceen al in Nederland en België voorkwam, dan moet hij hooguit een zeldzame dwaalgast zijn geweest en zeker geen standwild.

Received: 20 April 2015

Accepted: 4 June 2015