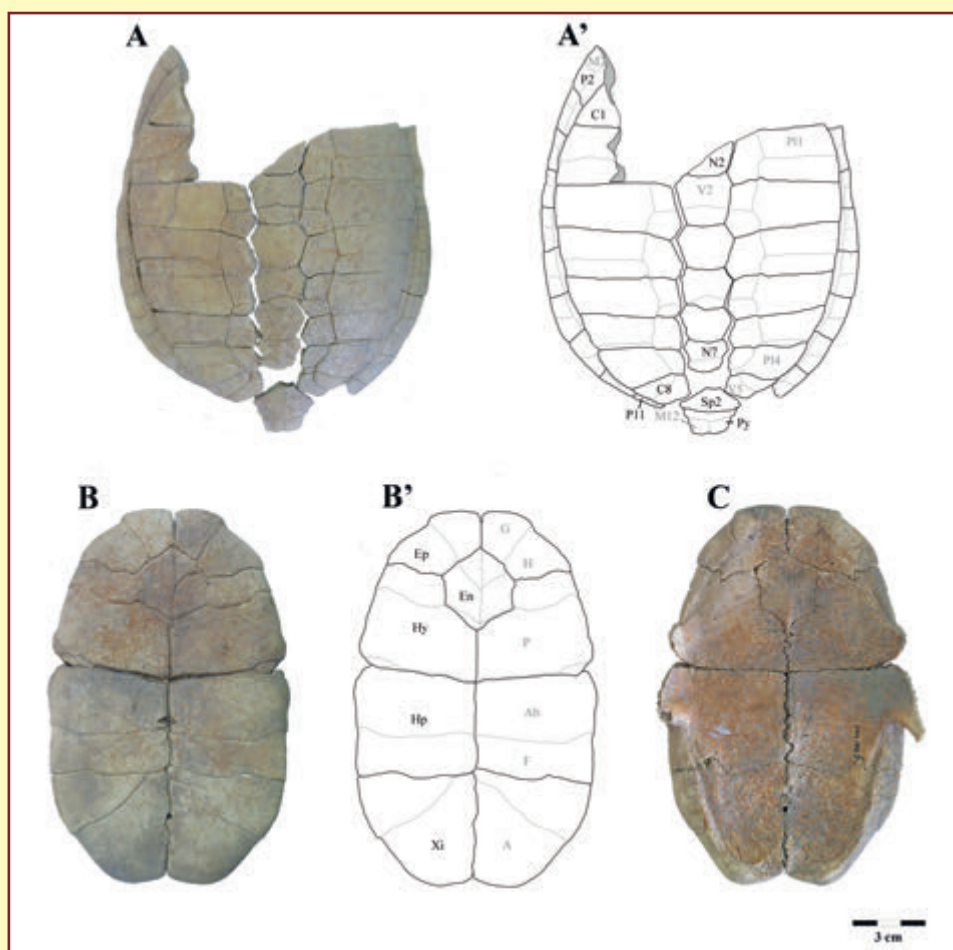


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FRONTISPIECE: Carapaces of the European pond tortoise, *Emys orbicularis* L., 1748 from the Iron Age site of Soto de Medinilla (Valladolid, Spain).

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Índices/Contents

IN MEMORIAM: ANA FABIOLA GUZMÁN CAMACHO	7-9
Freshwater and Marine eels in the Pacific and New Zealand: Food Avoidance Behaviour and Prohibitions. <i>B.F. Leach, J.M. Davidson & F.J. Teal</i>	11-56
https://doi.org/ 10.15366/archaeofauna2021.31.001	
Subsistence strategies in the Inner Congo Basin since the 14 th century AD: the faunal remains from Nkile and Bolondo (DR Congo). <i>Laurent Nieblas Ramirez, Veerle Linseele, Wim Wouters, Hans-Peter Wotzka & Wim Van Neer</i>	57-75
https://doi.org/ 10.15366/archaeofauna2021.31.002	
Zoarqueología de todo un valle: cambios en el consumo de animales en los últimos 3.400 años en El Valle de Mauro, norte semiárido de Chile (31°s). All valley's zooarchaeology: changes in the consumption of animals in the last 3,400 years in El Mauro Valley, semiarid north of Chile (31°s). <i>Patricio López Mendoza, Daniela Villalón & Bárbara Rivera</i>	77-95
https://doi.org/10.15366/archaeofauna2021.30.003	
European Pond Turtle (<i>Emys orbicularis</i>) remains in Iron Age contexts of the Spanish Northern Iberian Peninsula. <i>Iratxe Boneta Jiménez, Corina Liesau Von Lettow-Vorbeck & Adán Pérez-García</i>	97-108
https://doi.org/ 10.15366/archaeofauna2021.31.004	
Gestión ganadera durante la Edad del Bronce Medio y Final en Mallorca (Islas Baleares). El caso del poblado de <i>Els Closos de Ca'n Gaià</i> . <i>Lua Valenzuela-Suau, Sílvia Valenzuela-Lamas, Bartomeu Salvà, Joan Fornés, David Javaloyas, Llorenç Oliver, Florent Rivals & Delphine Bosch</i>	109-132
https://doi.org/ 10.15366/archaeofauna2021.31.005	
Archaeozoological studies: new database and method based on alphanumeric codes. <i>Cristina Real, Juan Vicente Morales, Alfred Sanchis, Leopoldo Pérez, Manuel Pérez Ripoll†, Valentín Villaverde</i>	133-141
https://doi.org/ 10.15366/archaeofauna2021.31.006	
Mariscadores en las costas del Caribe colombiano en época prehispánica y moderna: una reflexión para evaluar el impacto humano en los ecosistemas marinos desde la arqueomacología y la etnoarqueología. <i>Diana Rocío Carvajal Contreras</i>	143-154
https://doi.org/ 10.15366/archaeofauna2021.31.007	
Étude ostéométrique des principaux os des membres et de la ceinture du membre thoracique chez le Faisan de Colchide (<i>Phasianus colchicus</i> L., 1758). Osteometric study of the main limb bones and of the thoracic limb girdle of the Common Pheasant (<i>Phasianus colchicus</i> L., 1758). <i>N. Mokrani, A. Borvon, A. Milla, C. Thorin & C. Guintard</i>	155-180
https://doi.org/ 10.15366/archaeofauna2021.31.008	
Announcements.....	181-185

European Pond Turtle (*Emys orbicularis*) remains in Iron Age contexts of the Spanish Northern Iberian Peninsula

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ABSTRACT: The aim of this paper is to present some new data concerning the systematic identifications of several terrapin findings documented in three Iberian Iron Age sites from the Northern Meseta and Basque-Cantabrian Basin: El Soto de Medinilla (Valladolid), La Mota (Valladolid) and La Hoya (Álava). New interpretations concerning the first-hand study of these remains are presented. With the aim of comprehending the interaction of humans with these reptiles, we consider that they were mainly captured as a food resource. The previous identification of *Emys orbicularis* (i.e., the European Pond Turtle) in El Soto de Medinilla and La Mota is confirmed and justified. The identification of the same taxon in La Hoya constitutes the youngest archaeological reference of its presence in the Basque-Cantabrian Basin.

KEYWORDS: TURTLE, ARCHAEOZOOLOGY, TAPHONOMY, FIRST MILLENNIUM BC, NORTHERN MESETA, BASQUE-CANTABRIAN BASIN

RESUMEN: En este trabajo se presentan nuevos datos e interpretaciones fruto del estudio de primera mano de varios hallazgos de galápagos recuperados en tres yacimientos ibéricos de la Edad del Hierro procedentes de la Meseta Norte y de la Cuenca Vasco-Cantábrica: El Soto de Medinilla (Valladolid), La Mota (Valladolid) y La Hoya (Álava). Con el fin de comprender la interacción humana con estos reptiles, se realiza un estudio tafonómico y arqueozoológico de los restos que se considera que fueron capturados principalmente como recurso alimentario. Asimismo, se aporta la justificación sistemática de la previa identificación de *Emys orbicularis* (el galápagos europeo) en los yacimientos de Soto de Medinilla y La Mota. La identificación del mismo taxón en el yacimiento de La Hoya constituye la referencia arqueológica más reciente de su presencia en la Cuenca Vasco-Cantábrica.

PALABRAS CLAVE: TORTUGA, ARQUEOZOOLOGÍA, TAFONOMÍA, PRIMER MILENIO A.C., MESETA NORTE, CUENCA VASCO-CANTÁBRICA

INTRODUCTION

During the final moments of the Bronze Age, the archaeological record of the Northern Iberian Peninsula shows that an important amount of settlements were abandoned, remaining few sites with population continuity (Blanco-González, 2010: 368-372). Throughout the First Iron Age (9th–5th centuries BC) in the Northern Meseta, some of the new occupied settlements grew in population and economy, compared to the previous stages. In the Duero Basin, these communities exploited fertile plainlands, with a specialised agriculture based on wheat, barley and oats crops, surrounded by oak and holm oak forests full of prey [e.g. Red Deer (*Cervus elaphus*), Roe Deer (*Capreolus capreolus*) and Wild Boar (*Sus scrofa*)]. This agricultural economy echoes in the material culture with big pottery containers for cereal storage, plain pottery and Atlantic influenced metallurgy (Ruiz Zapatero & Álvarez-Sanchís, 2015: 213-214). The material culture of the Basque-Cantabrian Basin communities shows an Urnfield Culture influence since the Late Bronze Age (Arnáiz Alonso & Montero Gutiérrez, 2004). During the First Iron Age, the Greek and Phoenician colonies demanded raw materials that transformed the central Iberian Peninsula economy, developing a profuse commercial network in the 6th century BC. This exchange networks, and the subsequent initial Iron industry stimulated the development of the indigenous communities changing the habitat from small villages to fortified settlements (Ruiz Zapatero & Álvarez-Sanchís, 2015: 215-216). During the Second Iron Age this tendency accelerated until the Roman conquest, with the appearance of large oppida (Ruiz Zapatero & Álvarez-Sanchís, 2015: 222).

Quaternary freshwater terrapins (i.e., *Mauremys leprosa* and *Emys orbicularis*) and tortoises (i.e., *Chersine hermanni* sensu Bour & Ohler (2008), traditionally described as *Testudo hermanni*; and, possibly, *Testudo graeca*) remains are identified in several Iberian archaeological sites (e. g. Félix *et al.*, 2006; Blasco, 2008; Nabais, 2012; Sanchis *et al.*, 2015). Within the framework of a doctoral thesis currently in process, and several research projects performed by the authors, most Iberian turtle archaeological remains have been studied through a wide chronological range, pursuing the aim of valuing the impact of these reptiles in the different sites where these animals are known (Boneta *et*

al., 2015a, b, 2017). The difficulties regarding the study of these faunal remains derive mainly from its general low frequency within archaeozoological assemblages, due to multiple factors regarding preservation conditions, correct identification, recovery techniques or cultural issues. In many sites, the extremely few findings provide limited information and prevent accurate archaeozoological approaches. Consequently, scarce specific studies are generally carried out for this clade of reptiles (in contrast with other faunal groups such as mammals, birds and fishes), preventing the execution of synthesis works and the achievement of general conclusions (Morales & Sanchís, 2009; Boneta *et al.*, 2015b). In addition, no systematic approach are generally conducted for most chelonian remains, few detailed attributions having been justified, and scarce specimens having been figured. Despite this limited information, the consumption of turtles has been reported in the Northern Iberian Peninsula since the Lower Pleistocene of Atapuerca (Burgos) (Blasco *et al.*, 2011).

Aside from El Soto de Medinilla (Valladolid) and La Mota (Medina del Campo, Valladolid) terrapin remains (Liesau, 1994, 1998; Morales & Liesau, 1995), in the Duero Basin, other published references for the European Pond Turtle in the Northern Iberian Peninsula come from the Basque-Cantabrian Basin (Figure 1). The oldest notices are the Mesolithic levels of Atxoste (Virgala, Álava) rock shelter. With an archaeological record that starts in the Upper Palaeolithic and lasts up until Bronze Age (*ca.* 12000 - 3360 BP), Atxoste record provided a significant faunal assemblage, product of human hunting (Alday Ruiz *et al.*, 2011). Within this osseous accumulation, one hundred and three remains of *Emys orbicularis* were identified in the Mesolithic levels V and VI (Pérez-García *et al.*, 2015). An additional reference of the European Pond Turtle from the Basque-Cantabrian Basin is available, although problematic. Altuna (1978) published the presence of an *Emys orbicularis* humerus in the Iron Age site of Castro de Berbeia (Barrio, Álava), from levels dated between 490 - 400 BC. Pérez-García *et al.* (2015) reported that the cited specimen is currently lost, so its record could not be revised by us.

The aim of this paper is to update and discuss the data concerning the systematic identifications and the interpretations in their archaeological context of the European Pond Turtle (i.e. *Emys orbicularis*) findings from three Northern Spanish

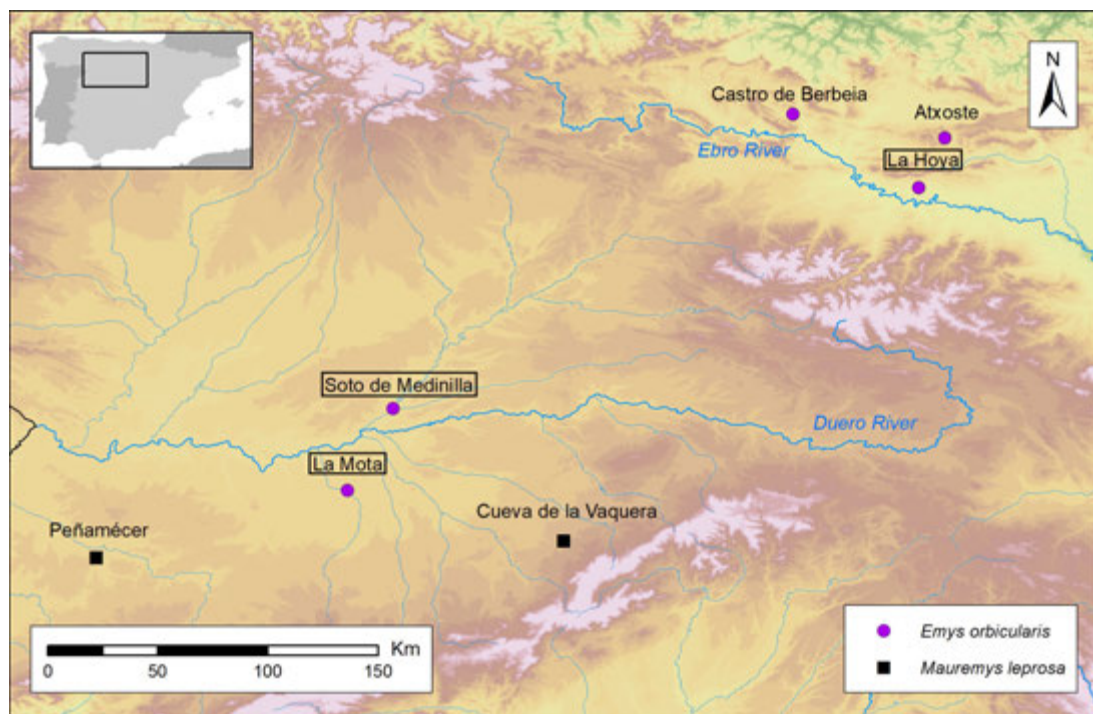


FIGURE 1

Location of all referred sites in the text. Presence of the European Pond Turtle (*Emys orbicularis*) and Spanish Terrapin (*Mauremys leprosa*) in the Northern Meseta and Basque-Cantabrian Basin from the Tenth to the First millennium BC.

Iron Age sites: El Soto de Medinilla (Valladolid), La Mota (Medina del Campo, Valladolid) and La Hoya (Laguardia, Álava).

ARCHAEOLOGICAL CONTEXTS

In this context, the site of El Soto de Medinilla (Valladolid) is a fortified settlement that defines the First Iron Age in the area. It is strategically located in a meander of the Pisuerga River. This river forms a Quaternary multiple terrace valley that comprises quartz and quartzite gravels, with silt and limestone pebbles, and loam matrix, with siliceous pebbles. The climatology is shaped by the high altitude of the area and the surrounding mountain ranges that favour a cold-mediterranean climate with long winters, scarce rainfalls and summer aridity (Liesau, 1998: 63-71). With an occupation that spans through 8th-3rd centuries, levels Soto I and Soto II stand out, corresponding with the late First Iron Age and a transition period to the Second Iron Age (Hierro I, 8th to initial 3rd centuries BC.). The Second Iron Age belongs to the so called

“Vaccean occupation” (Soto III) (Hierro II, initial 3rd -2nd centuries BC) (Delibes *et al.*, 1995). The faunal assemblage shows that the main consumed stock changed dramatically depending on the stages and the applied archaeozoological parameters (NISP or weight W). In Soto I and II ovicaprines (NISP 37%, W 12%) are the most common faunal remains, but the cattle (NISP 19%; W 39%) and horses (NISP 9%; W 25%) are the most consumed species. The suids (NISP 9%, W 5%) are less relevant than the hunting of wild species (NISP 25%, W 19%). For Soto III an intensification of the main stock is noted, as cattle numbers increase (NISP 36,7%, W 64%), as well as suids (NISP 14%, W 9%). Ovicaprine (NISP 35,7%, W 14%) remain stable, this communities consumed less than NISP 12% and W 7% wild species (Liesau, 1994, 1998: 164, figure 83). The context of the terrapin finding in El Soto de Medinilla was documented inside a round hut made with mudbricks and with an inner circular bank and a central fireplace, dated to 670 a.C. (Delibes *et al.*, 1995: 162). An almost 200 bones assemblage corresponding to the main domestic animals, several wild mammals, birds

and fish bones were identified inside the hut, hence one of the most singular faunal findings of the site (Morales & Liesau, 1995: 498; Liesau, 1998: 76, figure 33).

La Mota (Medina del Campo, Valladolid) is a naturally protected village strategically located on a terrace between the Zapardiel River and the Adajuela Stream. Surrounded by endorheic ponds and fertile meadows, the landscape is composed by sandy clays, Miocene and Quaternary sand deposits (Seco Villar & Treceño Losada, 1995: 220). With an occupation that lasts through the Iron Age, the levels between the First and Second Iron Age (7th – 4th centuries BC) stand out for its characteristic Celtiberian domestic architecture with rectangular houses (Arnáiz Alonso, 2017). The faunal assemblage recovered from these transitional stages (Hierro I/II) was studied by Morales & Liesau (1995). The results indicate an important predominance of two ruminants, the cattle (NISP 20%, W 47%) and the ovicaprines (NISP 63%, W 30%), and a relatively low frequency of suids (NISP 8%, W 6,3%) and wild species (NISP 8%, W 7,4%) (Morales & Liesau, 1995: table 4). The terrapin finding context from La Mota (Nivel II, Cuadro 9-A9) is a ‘sedimentation stratum with no remarkable elements’ (Seco Villar & Treceño Losada, 1995: 237) (Table 1).

With an occupation that starts in the Middle Bronze Age and continues till the Final Iron Age, the fortified village of La Hoya (Laguardia, Álava) is a plain settlement in a well communicated landscape known as ‘La Rioja Alavesa’ in the

Basque-Cantabrian Basin, 6 km distance from the Ebro River. With a mediterranean climatology, the pollen analysis results show a pine tree and holm oak predominance in a heavily anthropized scenery (Pérez Díaz & López Sáez, 2012: 165-166). Its most significant remnants are dated in the Second Iron Age (Celtiberian stage), with an outstanding urban planning (Llanos, 2005). The faunal remains from the site were studied by Altuna (1980). During the Celtiberian stage, the cattle is the main consumed stock (NISP 43%) and in this site the porcine (NISP 21%) is almost as well represented as the ovicaprines (NISP 28%). The consumed wild ungulates are scarce (5%) (Altuna, 1980: table 13). The terrapin remains from La Hoya were recovered in Sector I (Nivel A2, Cuadro C17), the village central area, inside a domestic context characterized by the presence of waste and faunal remains (Llanos, 2005).

MATERIAL AND METHODS

The European Pond Turtle (*Emys orbicularis*) is a middle size freshwater turtle form that reaches a maximum carapace length of 20 cm. In Southern Iberian Peninsula populations, its mean length is 13’8 cm for males and 14’2 cm for females (Ayres, 2015). It inhabits diverse freshwater and low brackish ecosystems, such as permanent and temporary ponds, ditches and reservoirs, from sea level to altitudes up to 1050 m. Generally, it occupies lentic environments, showing preference for abundant aquatic vegetal areas. In the West Iberian

SITE	CHRONOLOGY	TAXA	NISP	MNI	REFERENCES
El Soto de Medinilla (Valladolid)	Iron Age I-II (9 th -2 nd centuries BC)	<i>Emys orbicularis</i>	49	1	Morales & Liesau (1995)
La Mota (Medina del Campo, Valladolid)	Transition Iron Age I to II (7 th -4 th centuries BC)	<i>Emys orbicularis</i>	2	1	Morales & Liesau (1995)
La Hoya (Laguardia, Álava)	Iron Age (5 th -4 th centuries BC)	<i>Emys orbicularis</i>	4	1	Unpublished
Castro de Berbeia (Barrio, Álava)	Iron Age (490-400 BC)	<i>Emys orbicularis</i>	1	1	Altuna (1978)
Atxoste (Vírgala Mayor, Álava)	Mesolithic (9100-8510 cal BP (Level V) 9940-9450 cal BP (Level VI)	<i>Emys orbicularis</i>	103	6	Pérez-García <i>et al.</i> (2015)
Peñamécer (Espino de los Doctores, Salamanca)	Early Bronze Age (3800-4000 BP)	<i>Mauremys leprosa</i>	-	-	Jiménez-Fuentes & Pollos (1995)
Cueva de la Vaquera (Torreiglesias, Segovia)	Neolithic (5500-3600 BC)	<i>Mauremys leprosa</i> (<i>Mauremys caspica</i> sensu Morales & Martín (2003)	-	-	Morales & Martín (2003)

TABLE 1

Data of the referred sites in the text with European Pond Turtle (*Emys orbicularis*) and Spanish Terrapin (*Mauremys leprosa*) remains. Location, chronology, recognized taxa, NISP, MNI and references are provided. “-” quantity not specified in the publication.

Peninsula, it mainly occupies rivers and streams, in coppice and oak grove areas, while in the East it lives predominantly in marshes (Ayres, 2015). The annual activity of the species is bimodal with two peaks, after and before hibernation. Inactivity periods are marked by the high and low temperatures of summer and winter seasons (Ayres, 2015). The water temperature seems to be a turning point; the species starts its activity above 9°C (Ramos *et al.*, 2002).

The European Pond Turtle osseous remains studied here correspond to carapace elements, as in most archaeological contexts. El Soto de Medinilla and La Mota faunal remains are deposited in the Archaeozoology Laboratory (L.A.Z.), in the Biology Department of the Universidad Autónoma de Madrid (Madrid). The faunal remains from La Hoya are deposited in the BIBAT Arkeologia Fournier de Naipes Museoa, in Vitoria-Gazteiz (Basque Country). European Pond Turtle remains first-hand study, considering both the anatomy and the inter- and intraspecific variability and specific characterization, was carried out. The applied criteria for the species systematic identification are the ones proposed by authors such as McDowell (1964), Jiménez Fuentes (1980), Hervet (2000, 2004), Chesi *et al.* (2009) and Bailón (2010).

The remains studied here were photographed (with a Canon Ixus 107 photo camera), measured (with a calliper), graphically represented (using CorelDRAW 9) and examined in order to search for any human action trace (with a 10x, 15x and 20x magnification hand loupe). Detail photographs were taken with a Zeiss Stemi DV4 binocular loupe with an attached camera and software *Infinity 1*. Remains quantification is limited to the Number of Identified Specimens (NISP) per taxon, following Grayson (1984: 16) definition of specimen as “a bone or tooth, or fragment thereof”; and Minimum Number of Individuals (MNI) following Clason (1972), considering only the remains identified at species level, being the most abundant element for each species (considering laterality of shell and appendicular elements) the one that determines the MNI, including criteria related to size, age and sex. Fragmentation and bone surface modification were considered for the taphonomic analysis, identifying the type of fracture and visible processing marks (Lyman, 1994; Liesau, 1998). All the remains were previously identified by other specialists and deposited in public institutions.

RESULTS AND DISCUSSION

An almost complete shell was recovered in El Soto de Medinilla, corresponding to the carapace and plastron of a single individual (Figure 2) from stage Soto II (8th-6th centuries BC) (Cata A, Hut VII). The plastron is complete. The carapace preserves the lateral areas of the first and second left costals; the complete third to eighth left costals, second to eleventh left peripherals, second to eighth right costals, fourth to tenth right peripherals; a fragment of the posterior half of the second neural; and the complete third to seventh neurals, pygal and second suprapygal. Consequently, the NISP for El Soto de Medinilla is 49 (NISP = 49). The remains from La Mota are a single plastron fragment, corresponding to the articulated partial right hypoplastron and right xiphoplastron, recovered from Nivel II, Cuadro 9-A9 (7th-4th century BC) (NISP = 2) (Figure 3). A relatively complete but fragmented plastron posterior lobe was recovered in La Hoya site, inside a habitational area (Nivel A2, Cuadro C17) (Llanos, verb. com.) from the Celtiberian period (5th-4th centuries BC). Four plates (NISP = 4) are preserved (Figure 4), corresponding to the articulated hypoplastra and xiphoplastra. Only the right xiphoplastron is complete. The shell recovered in El Soto de Medinilla (Figure 2), the single plastron fragment recovered in La Mota (Figure 3) and the posterior plastral lobe recovered in La Hoya (Figure 4), shows that the identified MNI in each of these sites is 1.

Characters such as the absence of intergular and inframarginal scutes, the posterior reduction of the epiplastra and the presence of a little bulgy oval carapace allow their attribution to Testudinoidea (Hervet, 2004; Chesi *et al.*, 2009). This taxon differs from Testudinidae, clade that includes terrestrial forms (e.g., *Chersine hermanni* and *Testudo graeca*), in characters such as, smooth external bone surface, absence of medially short and laterally long costals (alternated with medially long and laterally short costals), absence of overlap between the pleuro-marginal sulci and the costo-peripheral sutures, medially poorly-developed epiplastral lip, and hexagonal second to, at least, sixth neurals, with the short margins latero-anteriorly located. This character combination is shared by the members of Emydidae (e.g., *Emys orbicularis*) and Geoemydidae (e.g., *Mauremys leprosa*) (Hervet, 2000; Bailón, 2010). The individual of El Soto de Medinilla (Figure 2) can be attributed to the Euro-

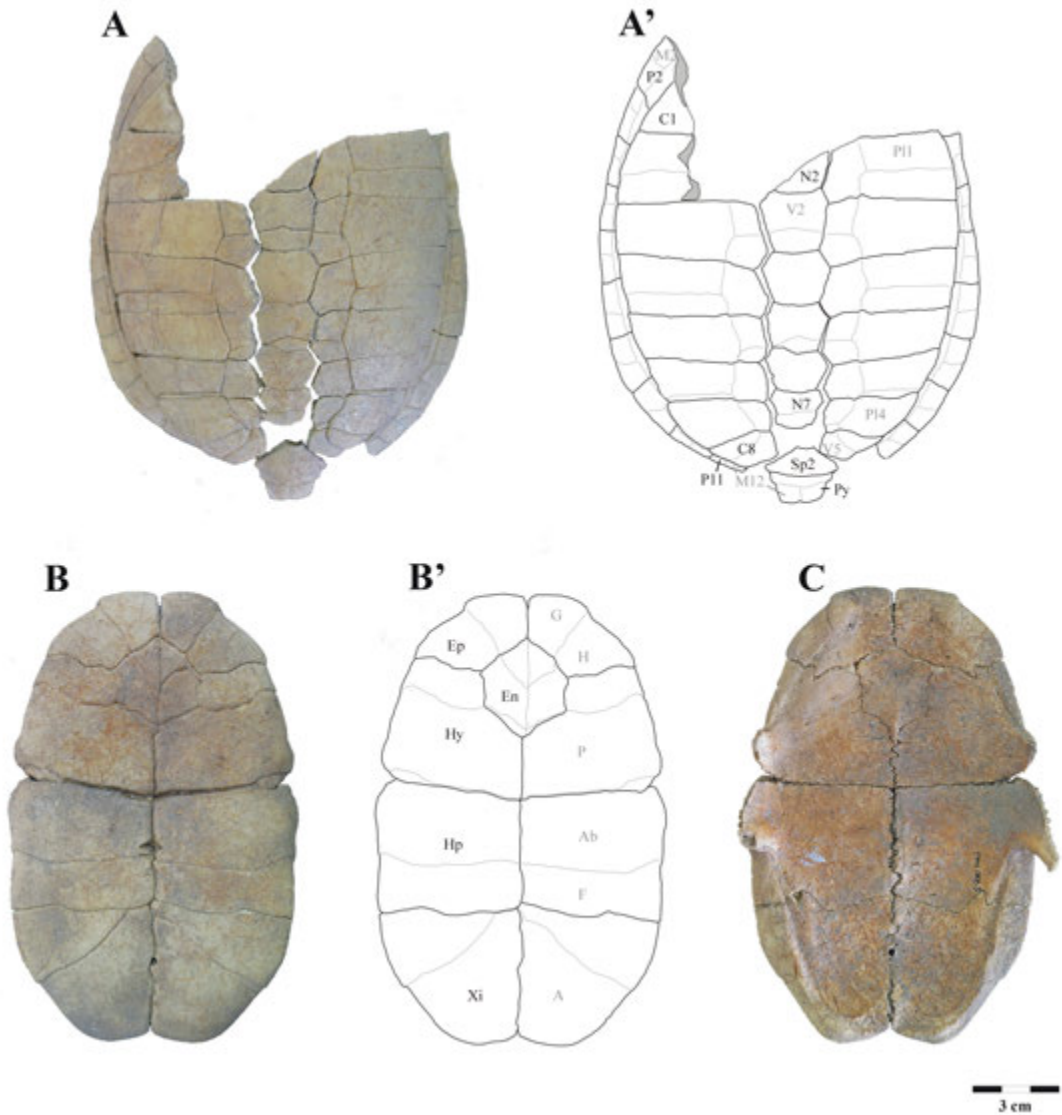


FIGURE 2

Deposited in L.A.Z. - Emy Orb 3, shell of *Emys orbicularis* from the Iron Age site of Soto de Medinilla (Valladolid, Spain). A, carapace, in dorsal view. B-C, plastron, in ventral (B) and dorsal (C) views. The scutes sulci are represented in grey, and the plates in black. The plates borders are drawn with continuous lines. Discontinuous lines are used for the broken borders. Abbreviations for plates: C1-C8, first to eighth costal; En, entoplastron; Ep, epiplastron; Hp, hypoplastron; Hy, hyoplastron; N2-N7, second to seventh neural; P2-P11, second to eleventh peripheral; Py, pygal; Sp2, suprapygal 2; Xi, xiphiplastron. Abbreviations for scutes: A, anal; Ab, abdominal; F, femoral; G, gular; H, humeral; M2-M12, second to twelfth marginal; P, pectoral; P11-P14, first to fourth pleural; V2-V5, second to fifth vertebral.

pean *Emys orbicularis* and not to *Mauremys leprosa* by the following criteria: absence of a medial keel on the pygal plate; pygal not remarkably wider than long; fifth vertebral scute overlapping on the anterior half of the pygal and the last pair of peripherals; sulcus between the pleural and the marginal scutes always distant from the suture between the

costal and the peripheral plates; markedly anteriorly directed lateral end of the sulci which delimit the marginals; plastral bridge shorter than the anterior and posterior lobes; absence of an osseous connection between the plastron and the carapace; subrounded anterior margins of the epiplastra; relatively low epiplastral lips; subhexagonal entoplas-

tron, with the greatest width situated in the anterior half; presence of a hinge between the hyoplastra and the hypoplastra; low and short plastral buttresses; wider than long hypoplastra; rounded lateral margins of the posterior plastral lobe; wide and very shallow anal notch; gular scutes overlapping the anterior half of the entoplastron; humero-pectoral sulci located on the posterior edge of the entoplastron, near posterior margin; pectoro-abdominal sulci located on the most posterior region of the hyoplastra; short abdominal scutes relative to the anals; absence of axillary and inguinal scutes

(Hervet, 2000). Considering this character combination, the specimen recovered in El Soto de Medinilla (Figure 2) can be attributed to the emydid *Emys orbicularis*, as it was previously proposed by Morales & Liesau (1995). Considering both the length of the shell (ca. >15 cm.) and the plastron flatness, it is interpreted as an adult female. The remains from La Mota (Figure 3) also shows an exclusive combination that allows its attribution to *Emys orbicularis* but not to *Mauremys leprosa*, including: smooth external bone surface, rounded lateral margins of the posterior plastral lobe. The

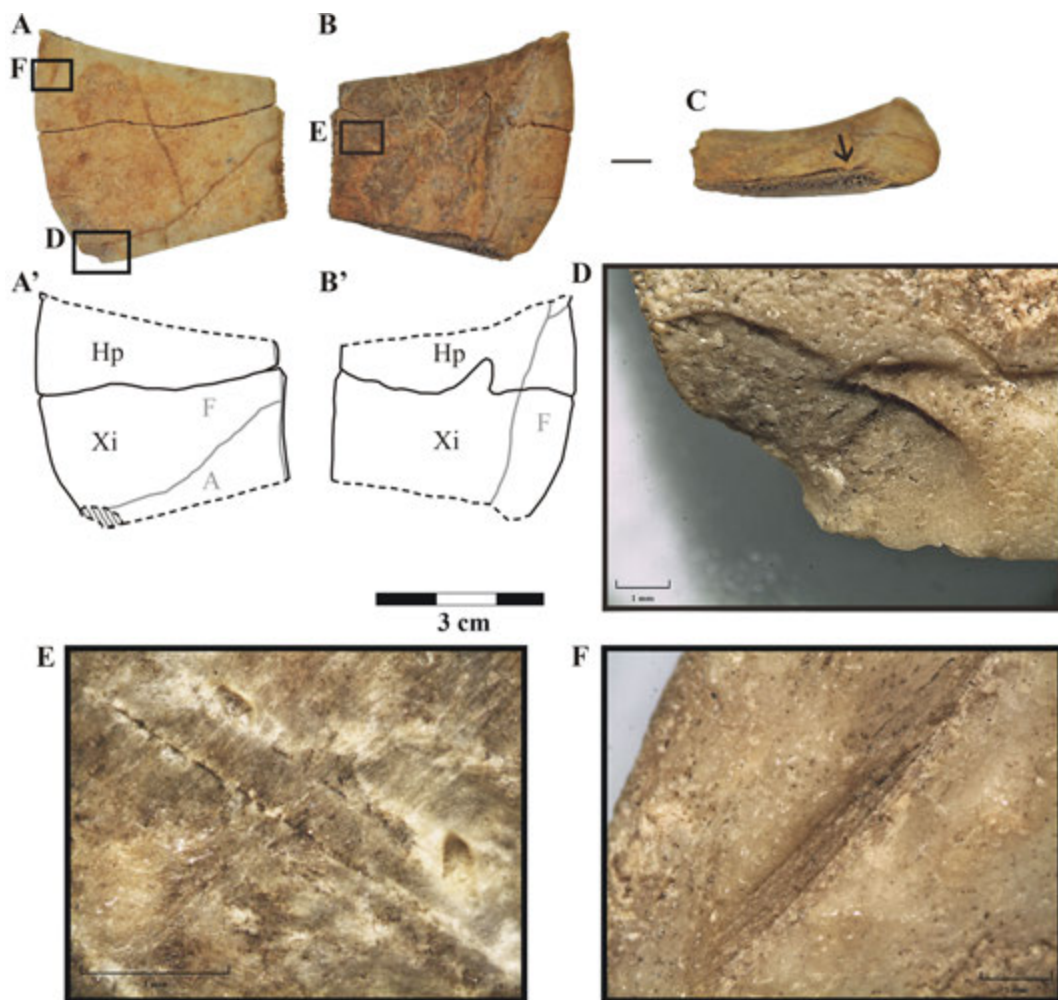


FIGURE 3

Deposited in L.A.Z., fragmented right hypoplastron and xiphiplastron of *Emys orbicularis*, plates from Iron Age site of La Mota (Medina del Campo, Spain), in ventral (A and A') and dorsal views (B and B'). Posterior edge detail (C), the arrow shows a sharpened straight profile in the cortical layer. Percussion flake detail (D), cutmarks detail (E) and scratch detail (F). The scutes sulci are represented in grey, and the plates in black. The plates borders are drawn with continuous lines. Discontinuous lines are used for the broken borders. Abbreviations for plates: Hp, hypoplastron; Xi, xiphiplastron. Abbreviations for scutes: A, anal; F, femoral.

remains from La Hoya (Figure 4) share all these characters, in addition to others unknown for the La Mota specimen (i.e., absence of carapace-plastron osseous contact; presence of a hinge between the hyoplastra and the hypoplastra; wider than long hypoplastra; abdominal scutes shorter than the anals; wide and very shallow anal notch), also allowing its attribution to *Emys orbicularis*.

The presence of *Emys orbicularis* in El Soto de Medinilla and in La Mota were previously briefly discussed but without quantitative data nor figuration. The authors interpreted them, been recovered in habitational contexts, as related to human con-

sumption, based on that these animals have been consumed until recent times (Morales & Liesau, 1995: 497). Due to the lack of any disarticulation marks, we cannot specifically confirm human consumption of the Soto de Medinilla individual. However, the absence of fractures or processing marks does not necessarily reject human consumption as other cooking techniques that prevent such evidence could have been employed, such as, boiling. Given the singular archaeological context of the finding, regarding the whole faunal assemblage, with more than 200 faunal remains corresponding to the main domestic animals (at least

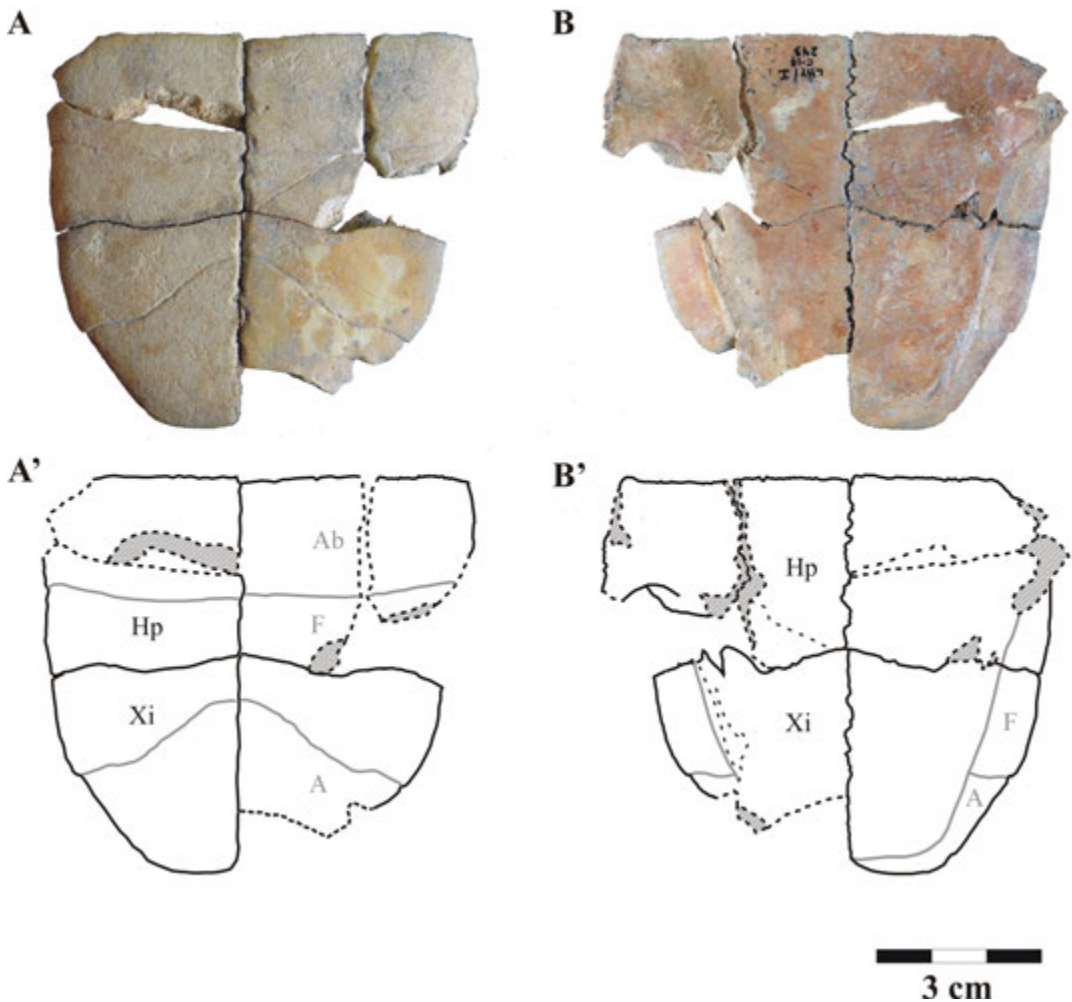


FIGURE 4

Deposited in BIBAT - LHY.1975.243, posterior half of a plastron of *Emys orbicularis*, plates from Iron Age site of La Hoya (Laguardia, Spain), in ventral (A and A') and dorsal (B and B') views. The scutes sulci are represented in grey, and the plates in black. The plates borders are drawn with continuous lines, discontinuous lines are used for the broken borders. Abbreviations for plates: Hp, hypoplastron; Xi, xiphoplastron. Abbreviations for scutes: A, anal, Ab, abdominal; F, femoral.

two horses, two bovines, a sheep and a young male goat), several wild mammals (at least two rabbits, a hare and a lynx), birds and fish (Liesau & Morales, 1995: 498; Liesau, 1998: 90-91), another use may be taken into consideration. The shell could have been used as raw material for a functional purpose, such as, a musical instrument or a rattle. However, this use is normally associated with distinct shell modifications (Gillreath-Brown & Peres, 2017).

Although little revealing in quantitative terms (Figure 3), La Mota remains from this site provide interesting taphonomic evidences. Both, the hypoplastron anterior edge and the xiphiplastron posterior edge show a sharp profile that may indicate some anthropical marks. The xiphiplastron presents a sectioned bone surface, done by percussion, probably with a metal tool. This mark seems to have been done in fresh as the ventral posterior edge shows a sharpened straight profile in the cortical layer (Figure 3 C); in the dorsal lateral edge there is a double flaked surface, probably due to the impact of the percussion act (Figure 3 A). Two slight parallel incisions are documented dorsally (Figure 3 B). In the hypoplastron ventral lateral edge a scratch is documented (Figure 3 C). All these evidences may perhaps indicate a butchering and dismembering of the terrapin as food resource, although the context does not provide more information in the archaeological record.

The high specimen fragmentation of La Hoya remains (Figure 4) may also indicate a consumption refuse origin. The right hypoplastron osseous inguinal bridge presents an old fracture, therefore this could indicate a processing manipulation to open the shell. However, no clear anthropical fractures or butchery marks could be identified, perhaps masked by the application of a consolidating product.

The current common presence of the European Pond Turtle (i. e. *Emys orbicularis*) in Northern Iberian Peninsula in contrast with the slight presence of the Spanish terrapin (*Mauremys leprosa*) is generally justified by the thermophilic character of this last species (Díaz-Paniagua *et al.*, 2015). Although very adaptable to inauspicious environments, it is currently rare in the north area of the Duero River, and in the west region of the upper half of the Ebro Basin (Díaz-Paniagua *et al.*, 2015: 13). In the Iberian archaeological record (Figure 1), there are no published references of *Mauremys leprosa* remains for the Iron Age, although this taxon has been cited in the Early Bronze of Peñamécer (Espino de los

Doctores, Salamanca) (Jiménez Fuentes & Pollos, 1995) and in the Neolithic of Cueva de la Vaquera (Torreiglesias, Segovia) (Morales & Martín, 2003).

As previously noted, the low frequency of chelonian remains in the three sites studied prevent from developing an accurate archaeozoological analysis and provide scarce information about the interaction of the humans with these reptiles in each context. All the sites have optimal surrounding environment for chelonian capture due to its close location to river courses. Consequently, considering the taphonomic data and the archaeological contextual and environmental information, the most viable scenario for the presence of *Emys orbicularis* in La Hoya and, especially, in La Mota is to consider them as a food resource. This hypothesis could indicate an opportunistic and occasional capture better than a sporadic use, notably considering the huge faunal assemblages recovered in these sites with thousands animal bones. On the other hand, Soto de Medinilla remains point to alternative hypothesis still to be explored.

CONCLUSIONS

The study and review of the terrapin remains from El Soto de Medinilla (Valladolid), La Mota (Medina del Campo, Valladolid) and La Hoya (Álava) sites allows an overview of the occurrence of this group of reptiles for the Iron Age record in the Northern Iberian Peninsula. The identification of *Emys orbicularis* in El Soto de Medinilla and La Mota is confirmed and figured for the first time. Otherwise, the finding from La Hoya (Álava) constitute up to now the youngest archaeological justified reference of this taxon in the Basque-Cantabrian Basin. These results provide new information about the chronological and geographical distribution of this taxon in the Northern Iberian Peninsula.

Taphonomic evidences, such as processing marks (i.e., percussions, incisions and fractures) in addition to the archaeological context (mainly habitation) and the proximity of susceptible capture locations, lead us to propose that the remains of La Mota (Medina del Campo, Valladolid) and La Hoya (Laguardia, Álava) were transported to the sites by its inhabitants, consumed and then disposed as refuse mixed with other animal bones. However other hypothesis may be considered for Soto de Medinilla (Medina del Campo, Valladolid), such as its use as raw material for the elaboration of unknown

artifacts (i.e., rattles), given the good state of the shell and the unique faunal assemblage recovered in the hut. Nevertheless, their exceptional record during the Iron Age in the Northern Iberian Peninsula seems to reflect only an opportunistic and occasional capture as a food resource.

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ÍNDICE / CONTENTS

N MEMORIAM: ANA FABIOLA GUZMÁN CAMACHO.....	7-9
Freshwater and Marine eels in the Pacific and New Zealand: Food Avoidance Behaviour and Prohibitions. <i>B.F. Leach, J.M. Davidson & F.J. Teal</i>	11-56
https://doi.org/ 10.15366/archaeofauna2021.31.001	
Subsistence strategies in the Inner Congo Basin since the 14 th century AD: the faunal remains from Nkile and Bolondo (DR Congo). <i>Laurent Nieblas Ramirez, Veerle Linseele, Wim Wouters, Hans-Peter Wotzka & Wim Van Neer</i>	57-75
https://doi.org/ 10.15366/archaeofauna2021.31.002	
Zooarqueología de todo un valle: cambios en el consumo de animales en los últimos 3.400 años en El Valle de Mauro, norte semiárido de Chile (31°s). All valley's zooarchaeology: changes in the consumption of animals in the last 3,400 years in El Mauro Valley, semiarid north of Chile (31°s). <i>Patricio López Mendoza, Daniela Villalón & Bárbara Rivera</i>	77-95
https://doi.org/10.15366/archaeofauna2021.30.003	
European Pond Turtle (<i>Emys orbicularis</i>) remains in Iron Age contexts of the Spanish Northern Iberian Peninsula. <i>Iratxe Boneta Jiménez, Corina Liesau Von Lettow-Vorbeck & Adán Pérez-García</i>	97-108
https://doi.org/ 10.15366/archaeofauna2021.31.004	
Gestión ganadera durante la Edad del Bronce Medio y Final en Mallorca (Islas Baleares). El caso del poblado de <i>Els Closos de Ca'n Gaià</i> . <i>Lua Valenzuela-Suau, Sílvia Valenzuela-Lamas, Bartomeu Salvà, Joan Fornés, David Javaloyas, Llorenç Oliver, Florent Rivals & Delphine Bosch</i>	109-132
https://doi.org/ 10.15366/archaeofauna2021.31.005	
Archaeozoological studies: new database and method based on alphanumeric codes. <i>Cristina Real, Juan Vicente Morales, Alfred Sanchis, Leopoldo Pérez, Manuel Pérez Ripoll†, Valentín Villaverde</i>	133-141
https://doi.org/ 10.15366/archaeofauna2021.31.006	
Mariscadores en las costas del Caribe colombiano en época prehispánica y moderna: una reflexión para evaluar el impacto humano en los ecosistemas marinos desde la arqueomacología y la etnoarqueología. <i>Diana Rocío Carvajal Contreras</i>	143-154
https://doi.org/ 10.15366/archaeofauna2021.31.007	
Étude ostéométrique des principaux os des membres et de la ceinture du membre thoracique chez le Faisan de Colchide (<i>Phasianus colchicus</i> L., 1758). Osteometric study of the main limb bones and of the thoracic limb girdle of the Common Pheasant (<i>Phasianus colchicus</i> L., 1758). <i>N. Mokrani, A. Borvon, A. Milla, C. Thorin & C. Guintard</i>	155-180
https://doi.org/ 10.15366/archaeofauna2021.31.008	
Announcements.....	181-185