

**First notice about *Rhenechinus ibericus* (HAUSER & LANDETA, 2007)
from the Santa Lucía Formation (Upper Emsian) of
the Cantabrian Mountains (Province León, Northern Spain)**

Dipl.-Ing. Joachim HAUSER, Von-Sandt-Street 95, Germany 53225 Bonn,
E-Mail: crinoiden-aus-dem-devon@arcor.de; Internet: www.devon-crinoiden.de
with contributions of Fernando Gomez LANDETA, C/Monte Cerrau 11 2° K, 33006 Oviedo, España,
E-Mail: fglandeta@telecable.es
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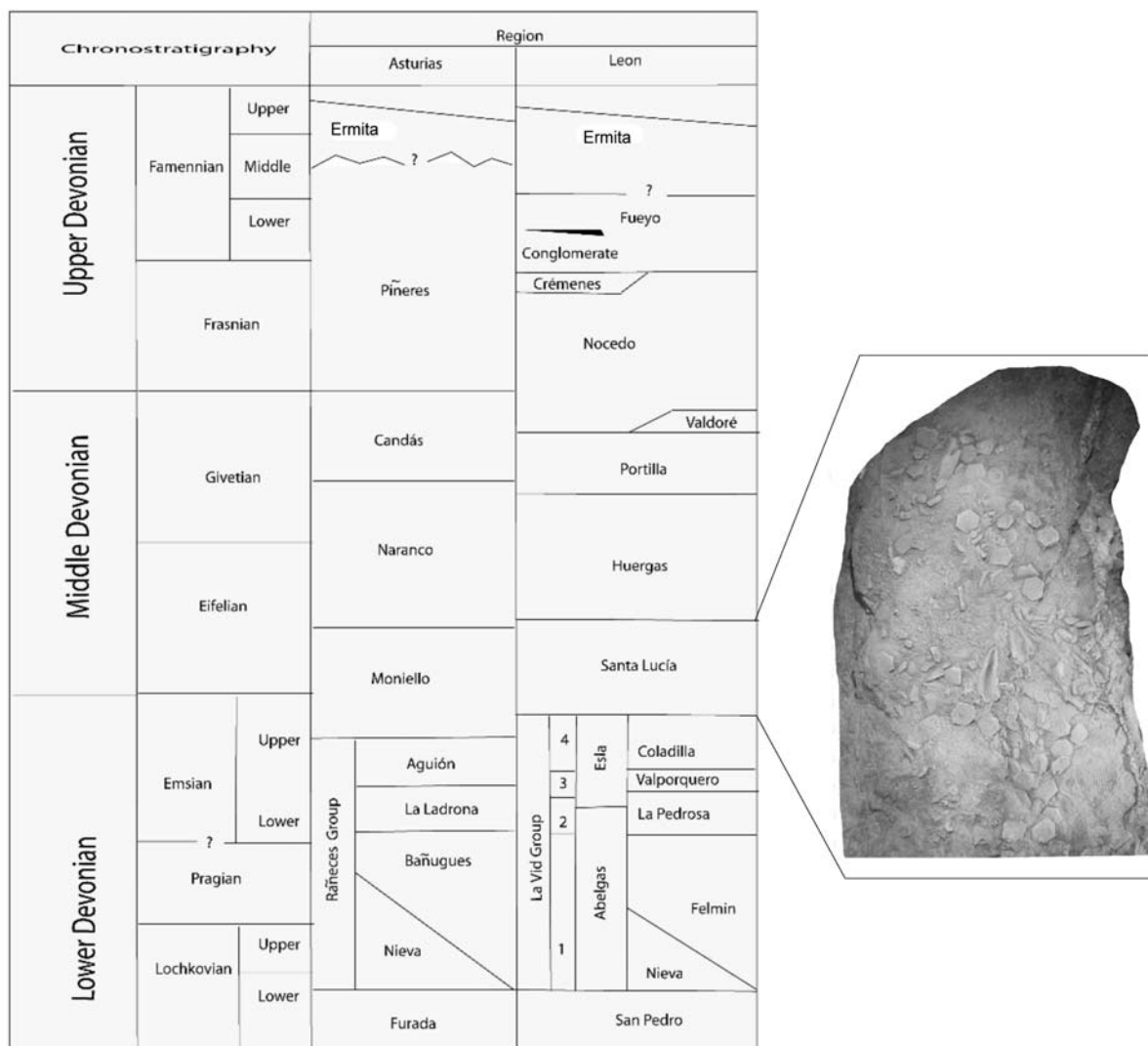


1 Introduction (by Joachim Hauser)

The Santa-Lucía outcrops near the hamlet of Aleje (more or less ident. with the Moniello Formation in Asturias) is known since the paper of HAUSER & LANDETA, 2013 of the occurrence of well preserved crinoids. Until a field-trip in 2015 the author found in the upper part of the exposed profile on a weathered piece of rock some echinoid-remains. The occurrence of Devonian echinoids in northern Spain is known since the paper of HAUSER & LANDETA, 2007 and later by SMITH et al 2012 from the famous outcrop Cap la Vela near the town of Arnao. This paper yield the first notice of a rhenechinoid taxon from the Cantabrian Mountains.

2 Geology and age

Fernando Gómez LANDETA gave a detailed description of the Aleje-outcrop in the paper of HAUSER & LANDETA, 2013:1.



↑ Text-Figure 1: Chronostratigraphy of the north-spanish Devonian (Asturias und León) after GARCIA-ALCALDE, J.L., CARLS, P., ALONSO, M.U.P., LÓPEZ, J.S., SOTO, F., TRUOLS-MASSONI, M. & VALENZUELA-RIOS, J.I. (2002): p. 69, fig. 6.2.; right: the small hand-piece with the echinoid-fragments from Aleje



Kurzfassung: Erstmals wird das Taxon *Rhenechinus ibericus* (HAUSER & LANDETA, 2007) aus der Santa Lucía Formation, Oberes Emsium, Unterdevon, des Kantabrischen Gebirges, Provinz León (Esla Region) nachgewiesen. Dieser Aufsatz ist ein Beitrag zur Verbreitung paläozoischer Echinoiden im nord-spanischen Devon.

Abstract: At the first time the taxon *Rhenechinus ibericus* (HAUSER & LANDETA, 2007) is described from the Santa Lucía Formation, Upper Emsian, Lower Devonian of the Cantabrian Mountains near the hamlet of Aleje (Esla Region, León). This paper is a contribution to the distribution of paläozoic echinoids in northern Spain.

Resumen: Se describe el nuevo taxón *Rhenechinus ibericus*, procedente de la formación Santa Lucía, del Emsiense superior, en el afloramiento cercano al pueblo de Aleje, (valle del Esla, León). Esta comunicación es una contribución a la descripción de los equinoides paleozoicos del norte de España.

Schlüsselwörter: Echnoidea, *Rhenechinus*, geographische Verbreitung, Santa Lucía Formation, Emsium, Kantabrisches Gebirge, Esla Region, Provinz León, Nordspanien.

Key-Words: Echinoid, *Rhenechinus*, geographical distribution, Santa Lucía Formation, Emsian, Cantabrian Mountains, Esla region, Northern Spain.

3 Systematics (by Joachim HAUSER)

Stem group Echinoidea LESKE, 1778

Family Echinocystitidae GREGORY, 1897

Genus *Rhenechinus* DEHM, 1953

Rhenechinus ibericus (HAUSER & LANDETA, 2007)
Text-figures 1-6

* 2007 *Lepidocentrus ibericus* HAUSER & LANDETA, p. 67-71, text-fig. 2 & 5
2012 *Rhenechinus ibericus* SMITH et al, 754-758, text-fig. 3-4

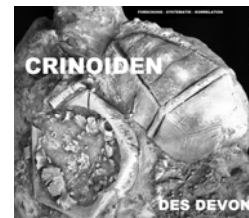
Stratigraphical range Moniello / Santa Lucia Formation, Upper Emsian

Type-species: *Rhenechinus hopstaetteri* DEHM, 1953

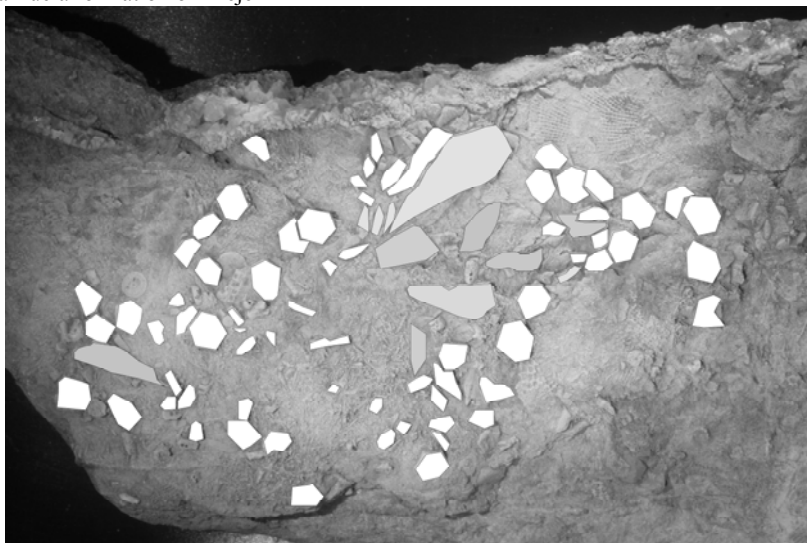
Description:

A detailed description of the habitus of *Rhenechinus ibericus* (HAUSER & LANDETA, 2007) is given in SMITH et al, 2012: 754-758. The specimen from the Santa Lucía formation is completely crushed and post-mortally scattered on the surface of the hand-piece; the thecal-plates and three big and some small parts of the lantern are in a more or less coherence to his normal morphological place of the theca. Several typical six-sided thin interambulacral plates are very well visible. The recognizable characteristics of this fossil point it to the echinoid-taxon *Rhenechinus ibericus* (HAUSER & LANDETA, 2007).

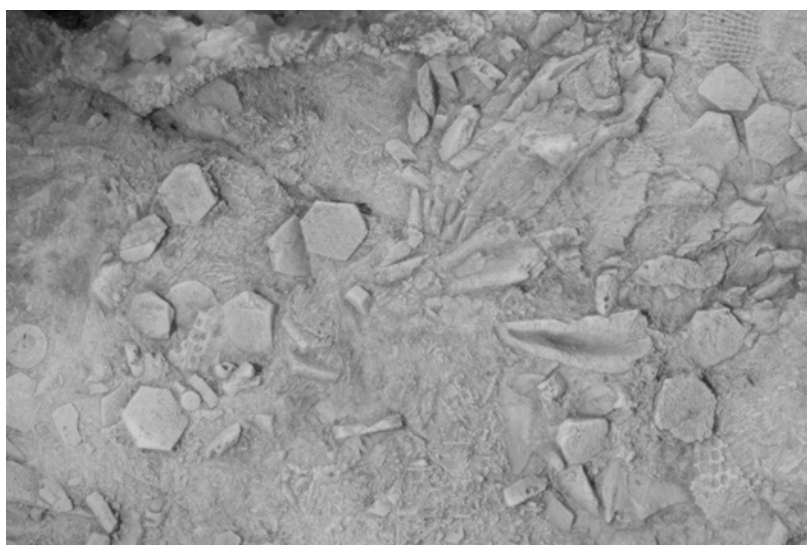




↑Text-figure 2: View of the complete piece with the disarticulated theca of *Rhenechinus ibericus* (HAUSER & LANDETA, 2007) from the Santa Lucía formation of Aleje



↑Text-figure 3: Draw of the main visible plates of the specimen; white = inter-ambulacral-plates; grey = disarticulated parts of the lantern

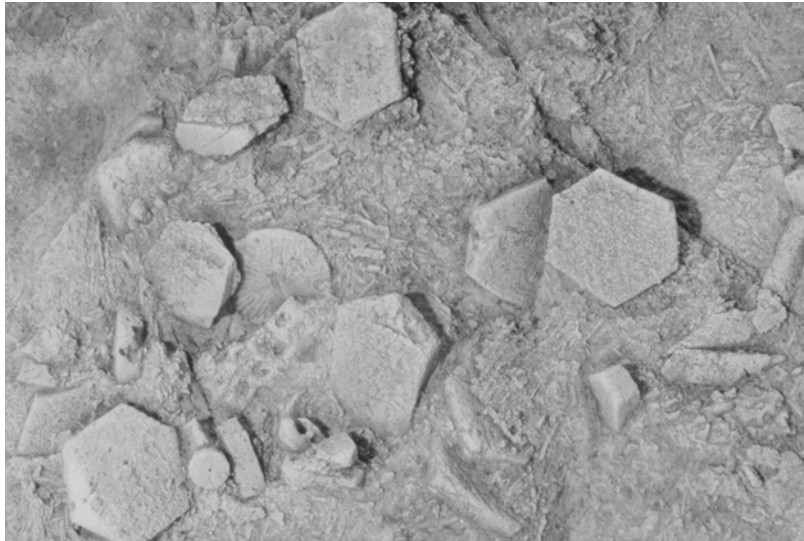


↑Text-figure 4: Details of the main parts of the echinoid *Rhenechinus ibericus*





↑Text-figure 5: enlarged view of the lantern-fragments of *Rhenechinus ibericus* (HAUSER & LANDETA, 2007)



↑Text-figure 6: Best preserved typical six-sided inter-ambulacral-plates of the echinoid

Depository: The described fossil will be stored in the collection of the Departamento de Paleontología de la Universidad de Oviedo (Asturias, España) after study.

Dimensions of the hand-piece: Length = 180 mm; height_{max.}: 100 mm

Supplement-fauna: The supplement-fauna and a interpretation of the environment in the Santa Lucía/Moniello Formation is given by Fernando Gómez LANDETA in HAUSER & LANDETA, 2013: 4.

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