ATLAS

OF THE

MEGABENTHOS

(incl. small fish)

ON THE

DUTCH CONTINENTAL SHELF

OF THE

NORTH SEA.

by

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Introduction

International conventions intended to safeguard and improve the ecological status of the North Sea such as the Marine Framework Strategy Directive require updated and wide scale knowledge on the distributions of marine organisms in the economic zones (EEZ) of the bordering countries. Long lived marine benthic organisms form an essential tool to monitor effects of management actions taken to increase ecosystem health and bottom integrity. In the past 10 years several overviews (Atlas) have been published dealing with the benthos in the economic zone of the Netherlands (Dutch Continental Shelf-DCS).

The first complete overview of the macrozoobenthos in the DCS was published by Holtmann et al. (1996 and updated by Lindeboom et al. 2008). The Atlas by Holtmann et al. (1996) covered the distribution of macrobenthic invertebrates which were collected with a boxcorer and sieved over a 1 mm sieve. Because of the relatively small sample-size of a boxcorer (0.078 m^2), it collects mainly smaller-sized and relatively abundant infaunal organisms. Larger species with lower densities such as common bivalves (e.g. ocean quahog *Arctica islandica*, striped venus *Chamelea striatula* etc.*)* and mobile epifauna are not quantitavely sampled with a boxcorer. For this purpose, Bergman & Van Santbrink (1994) developed the Triple-D dredge which samples a 250 times larger surface area (20m^2) than the boxcorer (0.078 m^2) and specifically targets larger and often long lived animals (megabenthos) living on top or in the top layer of the sediment (see below). The Triple D has been proven very effective in quantifying the effects on megabenthos during various impact studies in the North Sea such as those dealing with effects of beamtrawling (Bergman & van Santbrink 2000;Lindeboom & De Groot, 1998) and of windfarms (Bergman et al., 2012).

This Atlas presents the first detailed overview of exclusively the larger-sized zoobenthos (megabenthos) of the Dutch Continental Shelf (DCS). Megabenthos is defined as in- and epifauna larger than 1 cm with an individual wet weight of more than 50 mg, i.e. invertebrates, hemichordates and fish living in and at the seafloor. The data presented in this Atlas is based on field data collected with the Triple-D dredge at 421 stations in recent sampling surveys (2006-2011) carried out by the Netherlands Institute for Sea Research (NIOZ). The atlas provides ne, i.e. DCS-wide data on the distribution of common megabenthos species and that of several new and rare species.

Triple-D dredge

Technical details

To sample the larger in- and epifauna quantitatively, the Triple-D dredge (**D**eep **D**igging **D**redge; Bergman and van Santbrink, 1994) was designed, developed and built at NIOZ. The Triple-D (Figs. 1, 2) consists of a steel cage fitted within a strong and pressure resistant frame. At the back of the steel cage a 6 m long fine meshed net (mesh size 7*7 mm) is fitted. The dredge runs over the seafloor on flat runners like a sledge. The dimensions of the dredge cage are 2.7 meter wide, 2.4 meter long and 1.6 meter high. Its empty weight is about 1.5 tons.

Fig. 1. Artist impression of the Triple-D (side and front view) without the net attached at the back of the cage.

The effective part of the dredge is a hinged bottom plate with a cutting blade underneath the steel cage. When sampling the cutting blade is pressed into the seafloor and a strip of sediment is cut out over a pre-set distance. In front of the cutting blade a protruding funnel prevents epifauna to be pushed away by the bow wave caused by the forward moving dredge. This means that this dredge also catches epifauna quantitatively. Before and after the actual haul and when the dredge travels through the water column the cutting blade is retracted (does not penetrate the bottom) and the fishing opening is closed.

The dredge has an actively controlled mechanism for opening and closing of the cutting blade which is powered by compressed air (12 bar) and triggered by an odometer which is integrated in the pneumatic circuit. The signals from the steering odometer control electrical air valves which open or block the airflow to the pneumatic cylinders that move the cutting blade into and out of fishing position. The air system is a fully closed circuit and processed air is buffered

within the pressure resistant frame. In this way the Triple-D can operate up to water depths of 300 meter. The length of the haul is adjustable and is recorded by a second odometer. The cutting blade is 20 cm wide and penetrates the bottom 20 cm. Normally the haul length is set at 100 meter. This results in a sampled surface of 20 m^2 or a sediment volume of 4 m^3. This is the equivalent of more than 250 boxcore samples. Because of the length of a haul, the catch represents average faunal densities because it integrates patchy distributions. This is a great advantage in examining large scaled distribution patterns of species occurring in relatively low densities.

Fig. 2. Triple-D on board

Fishing, hauling and sorting

A Triple-D haul consists of two phases. In the first phase ("pre-run") the dredge is lowered to the seafloor and the steel cable is veered to at least 5 times the water depth while the ship's speed is increasing up to 3 knots. In this phase the cutting blade remains retracted and is closed. The length of the pre-run depends on water depth and the veering speed of the fishing line. For the Dutch continental shelf and a minimum veering speed of 0.5 m/s, a length of 250 m for the pre-run is sufficient. After the pre-run distance has been travelled (controlled by the odometer) and the dredge has obtained its working ground speed (3 knots) the cutting blade is pneumatically pushed into the seafloor while simultaneously the cage with the attached net opens. With this, the second phase, i.e. the fishing operation starts. In this phase (the actual "run") the dredge cuts out a strip of seafloor including the associated infauna and epifauna which is retained in the cage and the net. After the preset track distance has been travelled, the hinged bottom plate is pulled upwards, the cutting blade is closed

by the lid and the dredge stops fishing. Now the ship can start hauling. Before the catch is brought on board it is flushed by towing it behind the ship for several minutes to wash away the remaining silt and sand. An animation of the Triple-D is available on the NIOZ YouTube channel (http://www.youtube.com/watch?v=O3XIFzbljWk).

On board the catch is homogenized and transferred into storage bins and subsequently sorted (Fig. 3). Variable sub-sampling factors are applied depending on the number of specimens of a particular species. These sub-sample factors range between 1/64 for extremely abundant to 1/1 for rare species. All specimens in a subsample are identified, counted, measured and weighted on board. Only specimens which need further inspection are taken to the lab. The Triple-D provides reliable density estimates of larger-sized molluscs, echinoderms, polychaetes, crustaceans, and other miscellaneous fauna groups, but also for small-sized fish. Although the Triple-D is more complex to operate than a conventional dredge the accurate quantification of the targeted long-lived fauna is a notable advantage (e.g. Duineveld et al., 2007). As such the Triple-D has yielded data for impact-effect studies which no other sampling device could have provided.

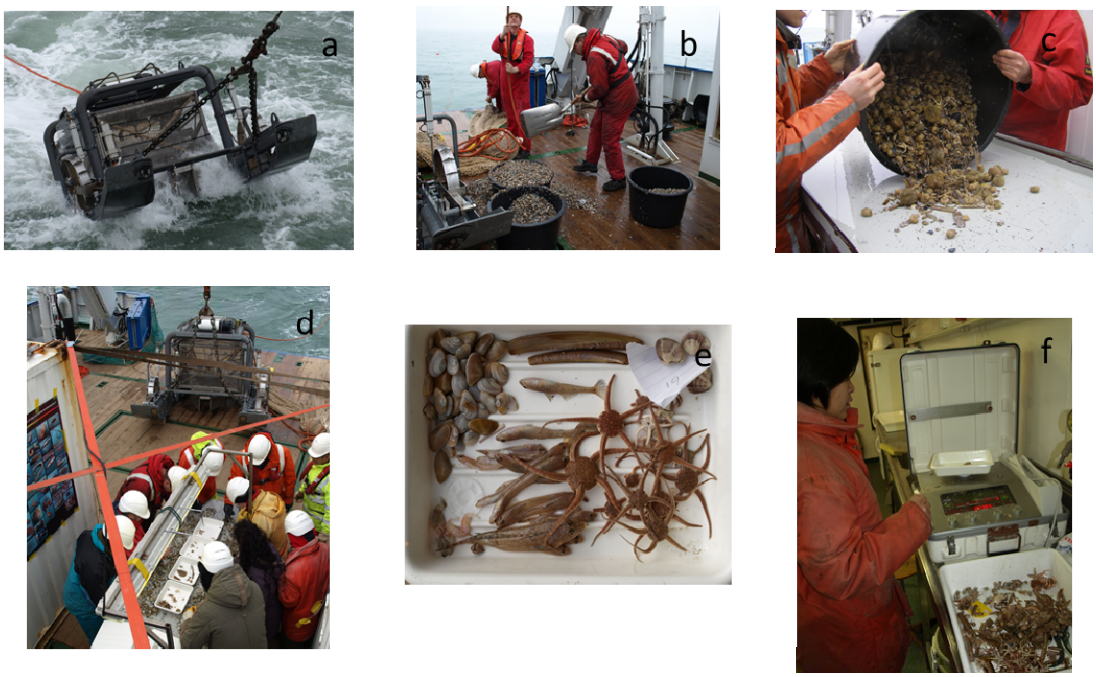

Fig. 3. Triple-D procedure and processing of catches. a) Triple-D towed behind the ship to wash out sediment, b) and c) transport of the returns in bins up to the sorting table, d) sorting, counting and measuring the fauna, e) tray showing the piled species after sorting, f) weighing the species in each catch.

Surveys

Originally the Triple-D dredge was developed and used for fisheries impact studies in the North Sea, the first one being a study between 1992 and 1996 on the impact of bottom trawls on long-lived bottom fauna (Bergman & van Santbrink, 2000). Other studies followed in which the Triple-D proved itself to be a crucial tool to demonstrate either direct or more long-term effects of bottom fisheries on the larger benthic fauna. Studies to be mentioned are the effects of alternative beam trawl designs on large sized benthos in 2000 (Ball et al., 2002) and the long-term effects of an area closed to fisheries on the composition of the benthic fauna in 2004 (Bergman et al., 2005; Duineveld et al., 2007). The dredge has also been used in other effect studies. For example the impact of dumping of harbour sludge on megafauna in the Dutch coastal zone (Daan et al., 1997, 1998, 1999, 2000; Stronkhorst et al., 2003) and more recently to explore the changes in the benthos community in a coastal wind farm closed for fishery (Bergman et al., 2012).

From 1996 onwards the Triple-D was also used to map megafauna distributions on the DCS. In 1996 60 locations were sampled (Bergman & van Santbrink, 1997) and this survey was repeated the following year (1997). Based on these surveys the first distribution maps of the larger-sized bivalves, echinoderms, crustaceans and small bottom fish could be made (Bergman & van Santbrink, 1998). Because of the geographical spacing of the sampled stations, these maps were not very detailed and illustrated that for a good overview a denser grid of stations should be sampled. With this in mind, the Triple-D was used in the deep Fladen Grounds (140 m) in the northern North Sea in 2000 to obtain reliable density estimates and a geographical distribution of the long-lived bivalve *Arctica islandica* (Witbaard and Bergman, 2003). At the end of 2006 the Frisian Front was sampled at a regular grid to determine and document the most obvious faunal gradients. In following years the grid used at the Frisian Front was extended to the rest of the DCS. When the fauna-rich coastal zone became of national interest in view of the projects Klimaat voor Ruimte and We@Sea, both in the framework of BSIK, the Triple-D sampling effort was directed to the Dutch coastal zone. Because much steeper faunal gradients were expected in this area a denser grid of stations was sampled. The successive cruises resulted in the sampling at 421 locations which covered most of the DCS.

Maps

For the current Atlas the main body of data come from the Triple-D surveys between 2006 and 2011 (Table 1). These data were merged into a database containing more than 187 species or groups. Densities (N/m^2), biomass (AFDW gr/m^2) and biodiversity (species richness, i.e. number of species per sample) per station were calculated. The AFDW biomass maps are based on species specific conversion factors between wet weight (WW) and AFDW or for the older data from conversions between animal size and AFDW. Relationships for these calculations were taken from literature (Rumohr et al, 1987; Robinson et al, 2010) or available from within NIOZ. Distribution maps were assembled using the software program Geostatistical Analyst from ArcGIS (carried out by van Goor and Riemers, THAURIS). Ordinary kriging is used for the interpolation of the station data, while the measured values are also plotted as open circles at each station. Triple-D stations where no specimens of a particular species were found are annotated with a "+". For some rare species there are not enough data for the construction of an interpolated map with kriging. For these species only maps with plots of the measured data are presented, often together with other relatively rare but related species.

Table 1. Overview of research cruises of which the data are used for this Atlas.

Cruise name	Cruise code	Ship	N_stations	Year
BEON97SUBPROJ.5	MITRA-1	Mitra	10	1997
LOSWAL 97	MITRA-3	Mitra	10	1997
ARCA 2006	ARCA2006	Arca	30	2006
COSTRA 2007	64PE260	Pelagia	26	2007
COSTRA 2007	64PE261	Pelagia	54	2007
Noordzeewind	64PE265	Pelagia	12	2007
BSIK	64PE266	Pelagia	101	2007
NORMOMAP	64PE287	Pelagia	65	2008
COSTRA 2008	64PE288	Pelagia	22	2008
COSTRA 2008	64PE289	Pelagia	30	2008
NORMOMAP	64PE338	Pelagia	50	2011
NIOZ-MONITORING	64PE340	Pelagia	11	2011

For a limited number of stations sediment cores were collected. For the top 5 cm of these cores median grain size and silt content (% <63µ) were determined with a Beckman Coulter LS 13 320 (Table 2a). Analyses were performed on untreated freeze-dried samples. The samples were not treated with

acid nor oxidized with H_2O_2, nor underwent an ultrasonic treatment that might have caused unnatural partitioning of sediment aggregates.

The positions of the stations that were sampled with the Triple-D in the period 2006-2011 (Fig. 4) were distributed evenly over the offshore area of the DCS north of the Province Zeeland. The coastal zone has a denser grid of stations because the faunal gradients were expected to be steep. In some areas there are still gaps, i.e. missing stations. This is because of physical constraints such as the presence of pipelines, firm clay, or stones. The largest areas not sampled are the far south of the DCS and the stony Cleaver Bank including its direct surroundings. To fill the data gap in the far south of the DCS older Triple-D data from 1997 (Fig 4); Bergman & Santbrink, 1998) were used. For the Cleaver Bank no data were available and therefore the area was left blank in the maps.

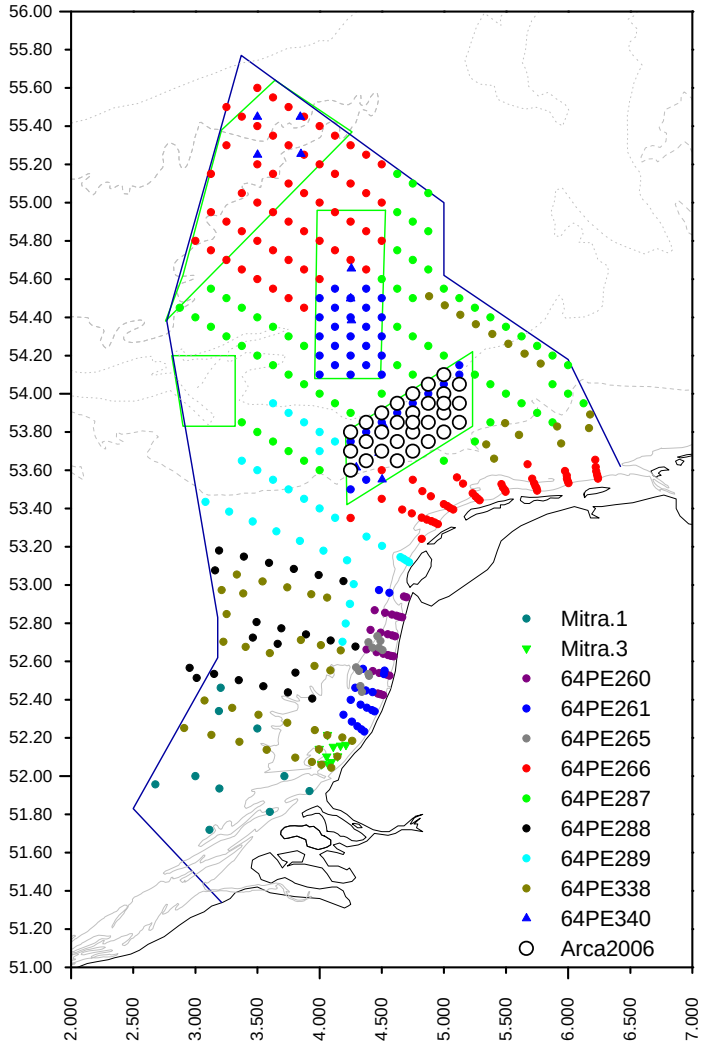

Fig. 4. Overview of the sampling locations over the Dutch Continental Shelf and used for this Atlas. The stations are color-coded by cruise number and ship. See table 1.

Next to distribution maps of the density and biomass for a single species, maps were constructed which depict density and biomass of a higher order taxon like pooled Crustacea, Polychaeta, Echinodermata, Mollusca, Bivalvia, Gastropoda and fish (Pisces). The total density (Map 003), total biomass (Map 004) and the biodiversity distribution (Map 005) of all megabenthos collected with the Triple-D in the cruises are presented in overview maps. A list in alphabetical order of the mapped animal groups (Table 2b) and species (Table 2c) is given at the end of this introduction. The distribution maps of the species and animal groups are shown in a taxonomical order, following the Handbook of the marine fauna of North-West Europe (Hayward & Ryland, 1995).

Results megabenthos

The distribution maps show that many megafauna species have well defined spatial distributions like a strictly coastal or offshore distribution. This distinctiveness is most likely linked to sediment type. Distributions of some closely related species differ markedly in the position of their gravity centres e.g. two related *Upogebia* species of which *U. deltaura* is more concentrated in the Frisian Front area, while *U. stellata* has highest densities in the central Oystergrounds (Maps 050, 052). Still there is a huge area of overlap. It would be challenging to explain this difference in distribution in ecological terms.

The total megafauna density (numbers per m²; Map 003) shows that the highest values of up to 879 individuals per m² are found in the coastal zone and in the Frisian Front plus its adjacent area to the north. The megafauna density at the Doggerbank is low, which is in contrast to the relatively high densities reported for the boxcore fauna (Holtman et al., 1996). For the Oystergrounds the central part has the highest density of megabenthos, while macrofauna as sampled by boxcores shows that the east en west have the highest values with the central Oystergrounds having a markedly lower density (Holtman et al., 1996). This illustrates the contrast and complementary nature of sampled faunal components targeted with the different types of sampling gear, i.e. a boxcore versus the Triple-D.

The total megafaunal biomass distribution (Map 004) is alike the total density and highest in the coastal zone and the Frisian Front with values up to 315 gr AFDW/m^2. Total biomass in the southernmost part of the DCS and in offshore sandy areas south of Den Helder does not exceed 4 gr AFDW/m^2. Total biomass in large parts of the Oystergrounds and at the Doggerbank ranges between 4 and 10 gr AFDW/m^2.

The highest biodiversity with 30 to 50 species per sample (Map 005) is found in the megafaunal community in the Frisian Front and the central Oystergrounds. The southernmost and north-western parts of the DCS, and the coastal zone have a relatively low species richness with on average of 20 species per sample. The distribution of the biodiversity derived from boxcore samples shows a strong North-South gradient in the species richness, with the North including the sandy Doggerbank, having the highest diversity (up to 64 species per boxcore) (Holtmann et al., 1996).

Spatial distributions of the various taxonomical groups are discussed in the next paragraphs. For each group or species two maps are shown, one with the

density distribution (in yellow-brown colors) and the other with the biomass distribution (in green-blue colors).

Mollusca

In total 11 species of Gastropoda, 36 species of Bivalvia and 4 taxa of Cephalopoda are covered by the maps. Since the Triple-D is not suited to estimate the density of the fast swimming very mobile Cephalopoda accurately, the presented results for this class should be viewed more in terms of presence/absence.

The overall distribution of molluscs (Map 076) shows a large similarity with both the total Triple-D fauna (Map 003) and the density distribution of bivalves (Map 096). The high bivalve abundances in the Frisian Front and the central Oystergrounds are a consequence of the high abundance of a few small-sized species such as *Corbula gibba* with abundances up to 219/m^2 (Map 144), *Nucula nitidosa (*up to 68/m^2; Map 098) and *Abra alba* (up to 25/m^2; Map 134). This area has also the overall highest gastropod abundance with *Turritella communis* (up to 86/m^2; Map 080) as main species. The high bivalve abundance in the coastal zone is mainly due to the dominant *Ensis directus* (up to 721/m^2; Map 140).

Mollusc biomass (Map 077) and bivalve biomass (Map 097) both peak in the coastal zone with values up to 288 g AFDW/m^2, whereas gastropod biomass (Map 079) reached its maximum in the Oystergrounds with maximum values of ~5 g AFDW/m^2. Especially the coastal zone is characterised by a high bivalve biomass, mainly generated by *Ensis directus* (Map 141). Bivalve biomass in the deeper parts of the DCS (Oystergrounds) is relatively low, while at the Doggerbank the bivalve biomass is higher again. This suggest a rather direct link between the occurrence of the mainly filter feeding bivalves and the productivity in the water column in these shallow areas. Most of the large-sized bivalves and gastropods showed distinct distribution patterns over the DCS which suggest linkages to sedimentary and hydrographic conditions.

Polychaeta

The Triple-D is not designed to quantitatively collect the small-sized, elongated and vulnerable polychaete species because they easily escape through the meshes of the net and cage, or are damaged to such an extent that they become unrecognizable. The only species sampled adequately are large and robust species like the sea mouse (*Aphrodita aculeata*; Map 022) or tube building species like *Chaetopterus*, *Owenia*, Pectinariidae, *Sabella* and *Sabellaria* spp. although they are retained in the net to a lesser degree. The tubes of *Lanice*

conchilega are easily caught with the Triple-D but it remains difficult to count live animals, as these are often broken up or washed out of there tubes. Nevertheless we could make distribution maps for 5 polychaete species and 3 genera.

Highest polychaete densities (Map 020) are found in a southern coastal station (up to 426/m^2), in the Frisian Front (up to 125/m^2) and in the northern Oystergrounds. *Owenia fusiformis* explains the high peak density in one coastal station, while *Pectinaria* spp. contributes most to the high density in the Frisian Front. The sea mouse (*A. aculeata* 0.8/m^2) contributes most to the polychaete density in the northern part of the Oystergrounds. Maximum biomass values can mainly be attributed to the same species, although *A. aculeata* (Map 023) contributes most to the relatively high biomass in the entire Oystergrounds. *Owenia fusiformis* has by far the highest biomass with 22 g/m^2 in a patch near the coast of the province Zuid-Holland.

Crustacea

Maps have been drawn for 22 species and 7 genera of crustaceans. Total abundances and biomass are presented in Maps 036 and 037. The centre of the crustacean distribution is at the Frisian Front and its surroundings (up to 56/m^2; Map 036), and along the coast with densities mostly up to 25/m^2. The biomass maxima were also found in those two regions. In the Frisian Front the ghost shrimps *Callianassa* spp and *Upogebia* spp. (22 and 48/m^2, respectively; Maps 054, 050, 052) are largely responsible for the high densities and biomass in that area. It must be reminded that the Triple-D does not catch specimens burrowing deeper than 20 cm. Hence the total density and biomass of these burrowing shrimps is likely to be a multitude of the values reported here. In the coastal zone the high density is mainly due to the occurrence of brown shrimp (*Crangon crangon,* map 042) with maxima up to 30/m^2, and various species of swimming crabs (*Liocarcinus* spp., maps 070, 072 and 074) with abundances of up to 27/m^2. Coastal maxima in biomass are mainly due to the same species together with the common (European green) crab (*Carcinus maenas,* map 068). The maps do not confirm that crustacean density is highest at Doggerbank as is evident from boxcore survey's (Lindeboom et al, 2008). This difference is caused by the relatively low abundance of large crustaceans at the Doggerbank and the dominance of high number of small crustaceans like amphipods in that area. This in combination with the different catch characteristics of boxcorer and Triple-D, generates this discrepancy.

Echinodermata

Density distributions are presented for 15 echinoderm species and 1 genus. The pooled density of these sea-urchins, starfishes, brittle stars and sea-cucumbers is highest at the Frisian Front, along the western section of the 30 m isobaths, and at selected spots in the coastal zone (Map 154). The pooled biomass shows a similar distribution (Map 155). The echinoderm spatial distribution is quite similar to the crustacean distribution (Maps 036). The high echinoderm densities in the Frisian Front are mainly caused by the brittle star *Ophiura albida (*up to 416/m^2; Map 164*)* and the sea cucumber *Leptopentacta elongata* (max. ~ 9/m^2; Map 180)*.* The small-sized fragile infaunal brittle star *Amphiura filiformis* which is a dominant element among echinoderms collected by a boxcorer is only found in low numbers in the Triple-D catch. Evidently this brittle star is not caught quantitatively with the Triple-D. The heart urchin *Echinocardium cordatum* (max. 88/m^2; Map 170) is most abundant along the westernmost part of the 30 m isobath. In the coastal zone the brittle stars *O. albida* (max. 416/m^2; Map 164) , *O. ophiura* (max. 126/m^2; Map 162) and the common seastar *Asterias rubens* (max 26/m^2; Map 160) contribute most to the total density.

The same holds for their contribution to total coastal biomass being 24, ~ 9, and 52 g AFDW/m^2, respectively. The distribution of three closely related heart urchins shows that the common heart urchin *E. cordatum* (Map 170) is widely distributed over most of the DCS. Two other related species (*Echinocardium flavescens* and *Brissopsis lyrifera;* Maps 172, 174) are mainly found in the deeper northern parts of the Oystergrounds and show a large overlap in distribution. The DCS-wide distribution of *E. cordatum* and its high abundance make this species a dominant element in the echinoderm fauna, also in terms of biomass (Map 171). Another dominant species in terms of biomass, is the common seastar *A. rubens (*Map 161). This species inhabits areas with coarser sediments than the other common seastar (*Astropecten irregularis*; Map 156). Latter species is exclusively found in the deeper, fine sediments at the DCS north of the 30 m depth contour. The brittle star *Acrocnida brachiata* (Map 166) is almost exclusively found at the Doggerbank in densities up to ~ 6/m^2. This species is sporadically found at some spots in the sandy areas north of the Dutch Wadden Isles.

Pisces

The Triple-D is not designed to catch larger highly mobile fish quantitatively, but yet catches smaller species like solenette (*Buglossidium luteum*), scaldfish (*Arnoglossus laterna*), sandeels (Ammodytidae) and Gobiidae. This resulted in

distribution maps for 25 fish species, 1 genus and 1 family. The results show that *Ammodytes tobianus* (Map 200) and Gobiidae (Map 208) are both abundant in the coastal area with densities up to ~4 and 18 individuals/m^2, respectively. With their maximum biomass of 7 and 8 g AFDW/m^2 they contribute significantly to the high total biomass which is found in the coastal and sandy offshore zone (Map 186). *B. luteum* (Map 218) prefers deeper, fine sandy offshore areas and is found in maximum densities of 6/m^2. *A. laterna* (Map 210) is found wide-spread over the DCS with the highest densities in more muddy sediments. Remarkable is the spatial distribution of *Echiichthys vipera* (Map 198) being almost restricted to the coarser sandy sediments in the southernmost part of the DCS. Thus highest total densities of fish are found in the coastal zone and in the sandy area north of the Wadden Isles (Map 186). Total biomass gives the same distribution pattern (Map 187).

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Acknowledgements

The Atlas presented here could not be made without all volunteers who helped sorting the catch and the crews who deployed and retrieved the Triple-D successfully even in rough weather conditions. The department of MTM and MTE of NIOZ is thanked for their technical support and maintenance of the dredge. The backbone of this Atlas is the shiptime which was made available by NIOZ for the research programs *Costra*, *Normomap* and *NIOZ-Monitoring* together with the financial support as part of BSIK programs *Klimaat voor ruimte*, project A6, and *We@sea*. Further funding was received from the Ministry of Agriculture, Nature an Fisheries which made it possible to sample the Frisian Front in a cooperative action between NIOZ and IMARES in 2006. Limited numbers of stations were sampled as part of the BEON research program, the Loswal-study (RIKZ), and the NZW research program

Table 2a. Maps summarizing of sediment characteristics, total density, biomass and species richness.

Parameter	Map nr.
Median grainsize	001
Silt	002
Total_density	003
Total_biomass	004
Species richness	005

Table 2b. List in taxonomical order of the higher taxonomic groups for which maps have been made. The maximum density and maximum biomass are indicated.

			Maxima	
			Density	Biomass
Taxon	Phylum	Map nr.	N/m²	gr/m²
Porifera	Porifera	006-007	0.1	0.33
Cnidaria	Cnidaria	008-009	21	9.21
Hydrozoa	Cnidaria	010-011	0.3	0.23
Actiniaria	Cnidaria	014-015	21	9.21
Nemertea	Nemertea	018-019	0.3	0.02
Polychaeta	Annelida	020-021	38.7	1.15
Sipuncula	Sipuncula	032-033	3.3	0.45
Echiura	Echiura	034-035	0.9	0.02
Crustacea	Arthropoda	036-037	56	20.8
Mollusca	Mollusca	076-077	725	288
Gastropoda	Mollusca	078-079	86.4	4.68
Bivalvia	Mollusca	096-097	725	288
Bryozoa	Bryozoa	152-153	0.5	0.05
Echinodermata	Echinodermata	154-155	507	61
Ascidiacea	Hemichordata	182-183	0.1	0.02
Pisces	Pisces	186-187	20	17.51

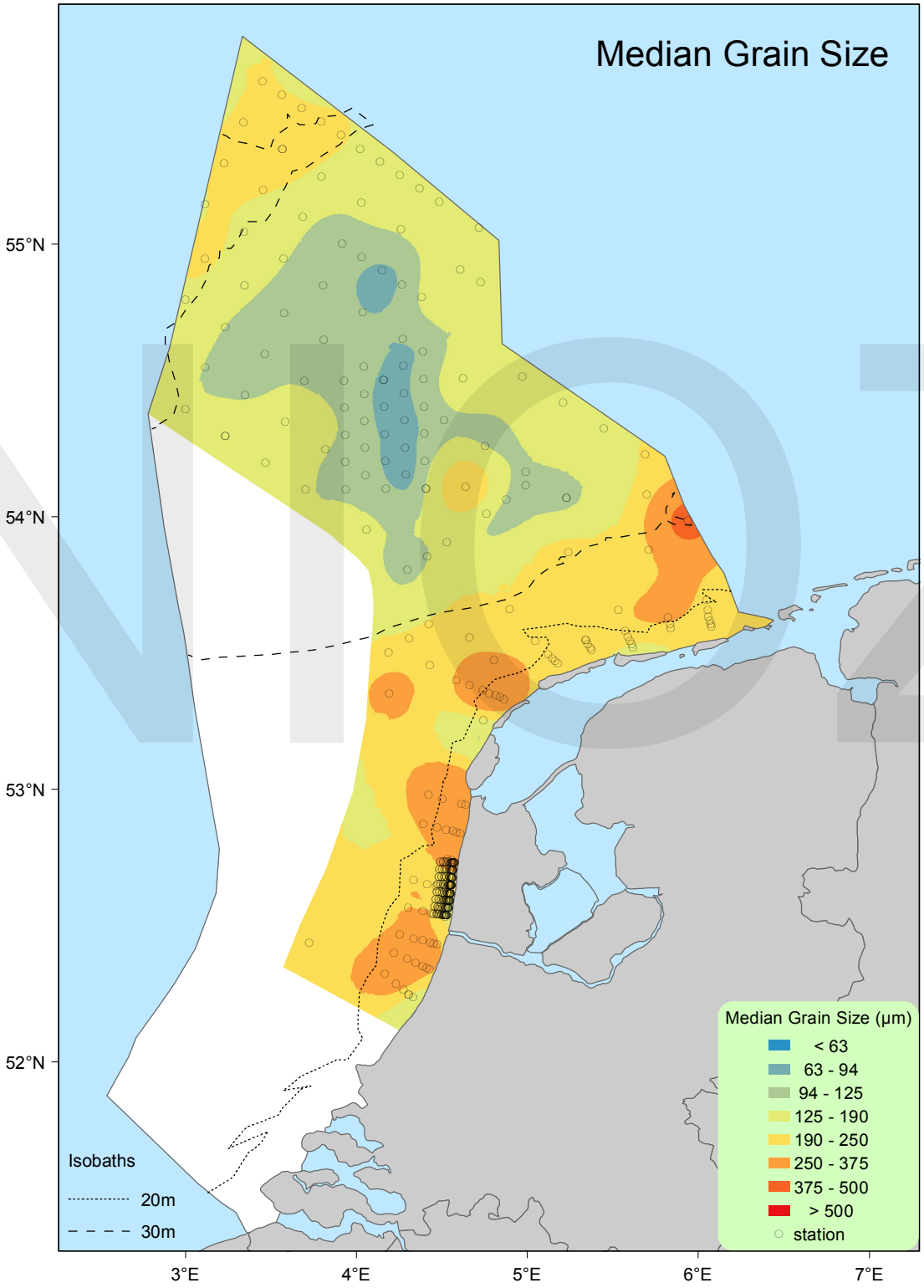
Table 2c. Alphabetical list of the megabenthos species caught in the Triple-D survey's. Map numbers (equal to page numbers), and the maximum density and maximum biomass are indicated.

Species	Taxon	Map nr.	Density N/m²	Biomass gr/m²
Abra nitida	Mollusca	132-133	0.2	<0.01
Abra prismatica	Mollusca	132-133	0.2	<0.01
Abra_alba	Mollusca	134-135	77.3	1.95
Acanthocardia_echinata	Mollusca	106-107	1	0.54
Acrocnida brachiata	Echinodermata	166-167	6.1	0.97
Acteon tornatilis	Mollusca	094-095	0.1	<0.01
Agonus_cataphractus	Pisces	196-197	0.6	0.52
Alloteuthis subulata	Mollusca	150-151	<0.1	0.06
Ammodytes_tobianus	Pisces	200-201	3.5	6.46
Amphiura filiformis	Echinodermata	166-167	3.8	0.12
Angulus_fabula	Mollusca	130-131	38	1.18
Angulus_tenuis	Mollusca	128-129	25.5	1.08
Anthozoa	Anthozoa	012-013	-	-
Aphrodita_aculeata	Polychaeta	022-023	0.7	1.15
Aporrhais_pespelecani	Mollusca	082-083	6.7	1.33
Aquipecten opercularis	Mollusca	100-101	0.6	0.04
Arctica_islandica	Mollusca	102-103	1.3	2.3
Arnoglossus_laterna	Pisces	210-211	1.3	1.48
Ascidia virginea	Tunicata	182-183	0.1	0.01
Aspitrigla cuculus	Pisces	194-195	2.5	12.2
Asterias_rubens	Echinodermata	160-161	53.7	52.1
Astropecten_irregularis	Echinodermata	156-157	4.1	1.85
Branchiostoma_lanceolatum	Pisces	184-185	13.1	0.3
Brissopsis_lyrifera	Echinodermata	174-175	8.4	4.5
Buccinum_undatum	Mollusca	090-091	0.5	0.89
Buglossidium_luteum	Pisces	218-219	18	4.97
Callianassa_spp	Crustacea	054-055	21.6	1.65
Callionymus_lyra	Pisces	204-205	1.2	7.18
Callionymus_reticulatus	Pisces	206-207	0.4	0.45
Carcinus maenas	Crustacea	068-069	2	5.43
Cerastoderma edule	Mollusca	104-105	0.2	<0.01
Cerianthus_lloydii	Cnidaria	016-017	0.3	0.3
Chaetopterus_variopedatus	Polychaeta	024-025	<0.2	<0.01

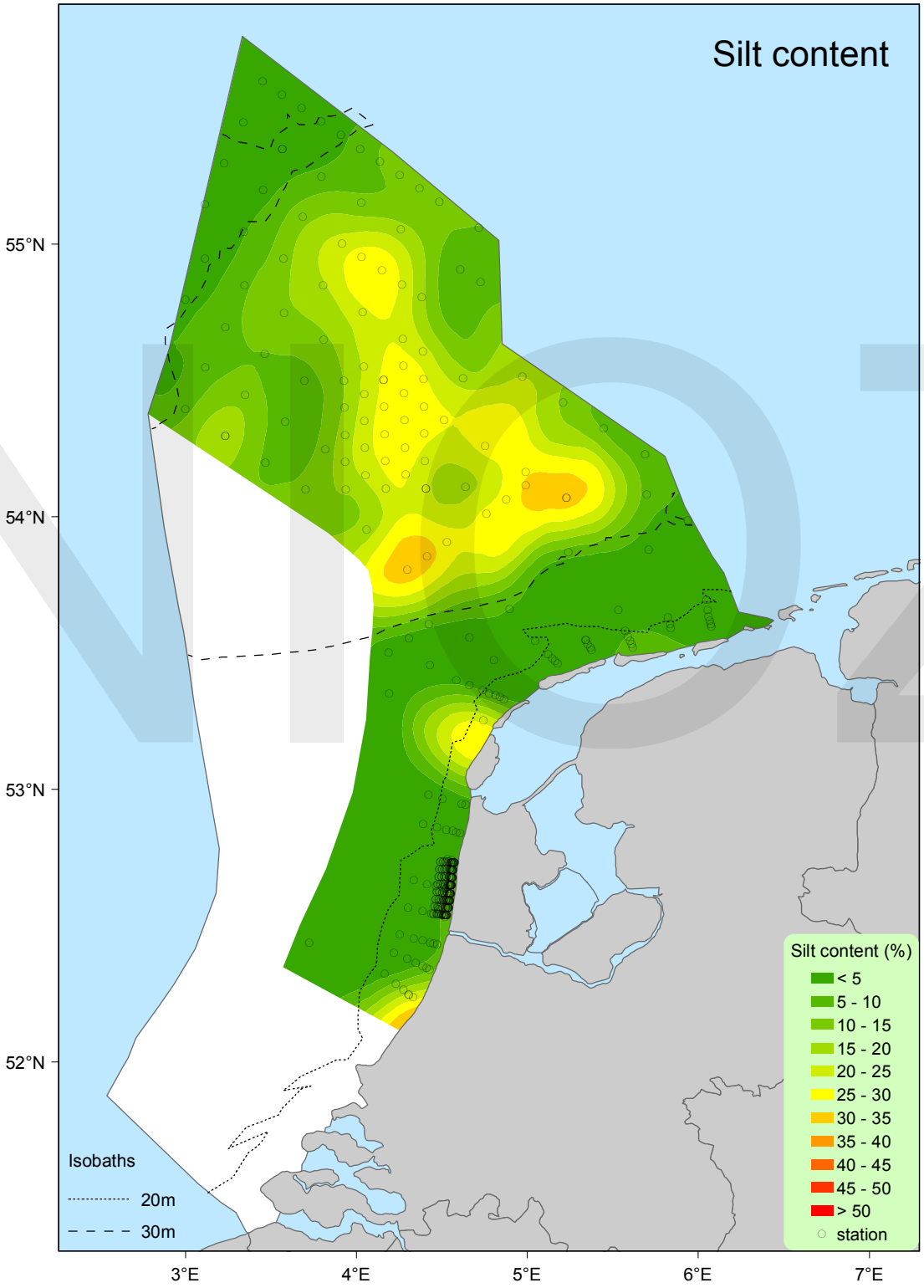
Species	Taxon	Map nr.	Density N/m²	Biomass gr/m²
Chamelea_striatula	Mollusca	108-109	3.1	0.41
Chelidonichthys cuculus	Pisces	194-195	2.5	12.2
Chelidonichthys lucernus	Pisces	194-195	0.1	0.01
Ciliata mustela	Pisces	190-191	0.1	0.32
Corbula_gibba	Mollusca	144-145	219.2	2.38
Corystes_cassivelaunus	Crustacea	064-065	6.8	4
Crangon_allmanni	Crustacea	044-045	11.1	0.5
Crangon_crangon	Crustacea	042-043	20.4	4.15
Cylichna cylindracea	Mollusca	094-095	0.5	<0.01
Diogenes pugilator	Crustacea	048-049	14	1.08
Donax_vittatus	Mollusca	126-127	20.2	1.75
Dosinia exoleta	Mollusca	112-113	0.7	0.2
Dosinia_lupinus	Mollusca	110-111	4.9	0.65
Ebalia_spec#	Crustacea	060-061	1	0.03
Echiichthys_vipera	Pisces	198-199	0.2	0.26
Echinocardium_cordatum	Echinodermata	170-171	88.8	60.5
Echinocardium_flavescens	Echinodermata	172-173	3.8	1.06
Echinocyamus pusillus	Echinodermata	176-177	0.5	<0.01
Enchelyopus_cimbrius	Pisces	188-189	0.5	1.32
Ensis_directus	Mollusca	140-141	721	287
Entelurus aequoreus	Pisces	192-193	3.2	6.8
Epitonium clathrus	Mollusca	088-089	0.4	<0.01
Eutrigla gunardus	Pisces	194-195	0.1	0.34
Gari_fervensis	Mollusca	136-137	1.1	0.31
Gobiidae	Pisces	208-209	18	7.57
Goneplax rhomboides	Crustacea	068-069	1.3	0.32
Hiatella arctica	Mollusca	100-101	<0.1	<0.01
Hippoglossoides platessoides	Pisces	216-217	0.1	1
Hyas spec.	Crustacea	062-063	<0.1	<0.01
Hyperoplus_lanceolatus	Pisces	202-203	4.5	7.57
Idotea spec.	Crustacea	038-039	0.8	0.02
Inachus dorsettensis	Crustacea	062-063	<0.1	0.01
Laevicardium crassum	Mollusca	104-105	0.2	0.08
Lanice conchilega	Polychaeta	030-031	0.2	<0.01
Lepidorhombus whiffiagonis	Pisces	216-217	0.1	1

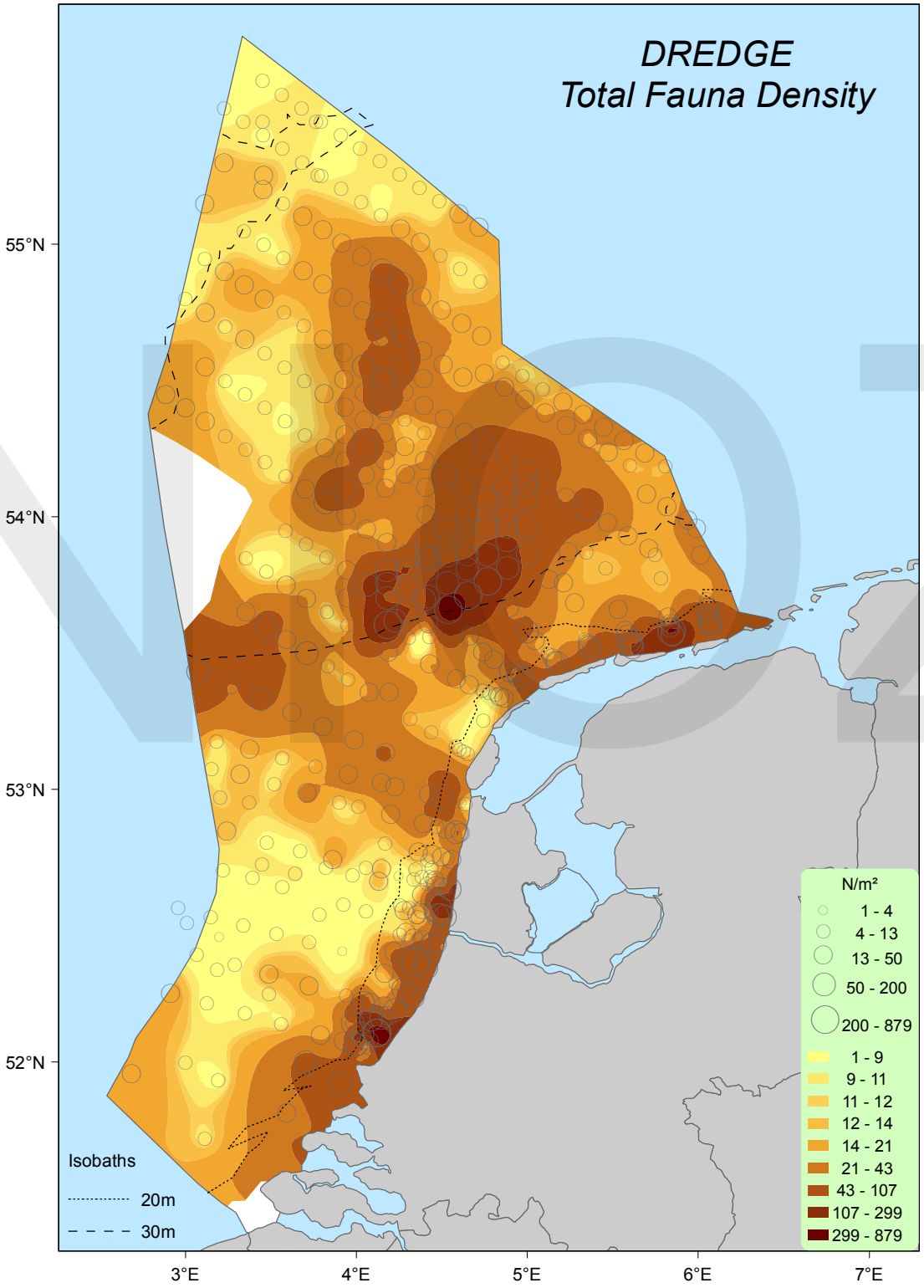
Species	Taxon	Map nr.	Density N/m²	Biomass gr/m²
Lepton squamosum	Mollusca	100-101	<0.1	<0.01
Leptopentacta_elongata	Echinodermata	180-181	8.6	0.59
Leptosynapta_inhaerens	Echinodermata	178-179	0.5	<0.01
Limanda_limanda	Pisces	212-213	1	3.35
Liocarcinus marmoreus	Crustacea	074-075	3.5	3.21
Liocarcinus navigator	Crustacea	074-075	13.5	3.69
Liocarcinus_depurator	Crustacea	072-073	0.6	1.11
Liocarcinus_holsatus	Crustacea	070-071	18.1	9.4
Liparis liparis	Pisces	190-191	0.1	0.01
Loligo vulgaris	Mollusca	150-151	<0.1	1.86
Lucinoma borealis	Mollusca	104-105	0.4	0.04
Luidia_spec#	Echinodermata	158-159	0.4	0.79
Lunatia catena	Mollusca	084-085	0.2	0.25
Lunatia pulchella	Mollusca	086-087	23.2	0.48
Lutraria_lutraria	Mollusca	124-125	5.4	3.09
Macoma balthica	Mollusca	132-133	103	1.79
Macropodia spec.	Crustacea	062-063	<0.2	<0.03
Mactra_stultorum	Mollusca	122-123	0.9	0.1
Microstomus kitt	Pisces	216-217	0.1	1.8
Mullus surmuletus	Pisces	190-191	0.1	0.03
Mya_truncata	Mollusca	142-143	0.4	0.43
Mysia_undata	Mollusca	114-115	1.2	0.04
Nassarius_reticulatus	Mollusca	092-093	6	0.48
Natatolana borealis	Crustacea	038-039	2.9	0.12
Necora puber	Crustacea	074-075	0.1	0.32
Nephrops norvegica	Crustacea	048-049	1.7	0.54
Neptunea antiqua	Mollusca	088-089	0.1	0.22
Nucula_nitidosa	Mollusca	098-099	68.8	1
Ophelia spec.	Polychaeta	030-031	0.8	0.03
Ophiotrix fragilis	Echinodermata	166-167	0.4	0.09
Ophiura_albida	Echinodermata	164-165	458.7	24.35
Ophiura_ophiura	Echinodermata	162-163	126	9.37
Owenia_fusiformis	Polychaeta	026-027	0.5	0.5
Pagurus_bernhardus	Crustacea	056-057	3.1	7.72
Palaemon spec.	Crustacea	048-049	0.2	0.17
Pectinaria auricoma	Polychaeta	028-029	0.4	<0.01

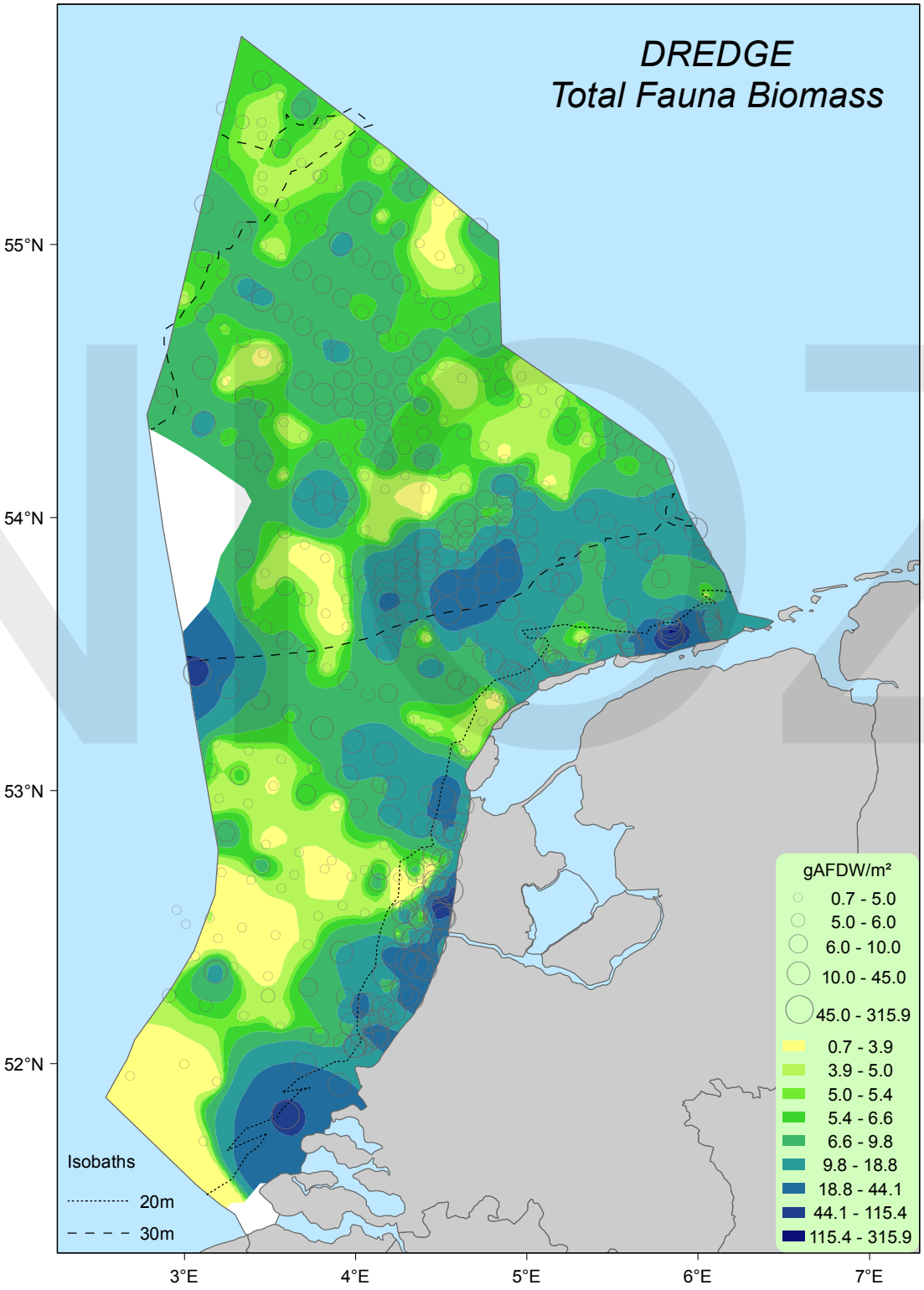
Species	Taxon	Map nr.	Density N/m²	Biomass gr/m²
Pectinaria belgica	Polychaeta	028-029	24.3	0.14
Pectinaria koreni	Polychaeta	028-029		
Pelonaia corrugata	Tunicata	182-183	0.5	0.22
Petricola pholadiformis	Mollusca	112-113	1.1	0.18
Phaxas_pellucidus	Mollusca	138-139	0.9	0.02
Pinnotheres pisum	Crustacea	058-059	<0.1	<0.01
Pisidia longicornis	Crustacea	058-059	<0.1	<0.01
Platichthys flesus	Pisces	216-217	0.1	8.9
Pleuronectes_platessa	Pisces	214-215	0.6	12.48
Pontophilus_spec#	Crustacea	046-047	3.5	0.1
Portumnus latipes	Crustacea	074-075	0.7	0.04
Processa_spec#	Crustacea	040-041	3.8	0.15
Psammechinus_miliaris	Echinodermata	168-169	3	0.81
Sabella spec.	Polychaeta	030-031	<0.1	<0.01
Sabellaria spec.	Polychaeta	030-031	0.2	0.63
Scaphander lignarius	Mollusca	094-095	0.1	0.08
Sepia officinalis	Mollusca	150-151	<0.1	1.1
Sepiola_spec#	Mollusca	148-149	0.1	0.04
Solea_solea	Pisces	220-221	0.5	5.61
Spatangus purpureus	Echinodermata	176-177	0.6	0.49
Spisula_elliptica	Mollusca	118-119	1.4	0.08
Spisula_solida	Mollusca	120-121	5.4	0.87
Spisula_subtruncata	Mollusca	116-117	81.9	5.31
Striarca lactea	Mollusca	100-101	<0.1	<0.01
Syngnathus acus	Pisces	192-193	0.2	0.1
Syngnathus rostellatus	Pisces	192-193	0.2	0.1
Syngnathus spec.	Pisces	192-193	1.3	0.08
Thia_scutellata	Crustacea	066-067	6	0.14
Thracia convexa	Mollusca	146-147	1.5	0.96
Thracia papyracea	Mollusca	146-147	0.2	<0.01
Timoclea ovata	Mollusca	112-113	0.2	<0.01
Turritella_communis	Mollusca	080-081	86	4.57
Upogebia_deltaura	Crustacea	050-051	42.4	18.65
Upogebia_stellata	Crustacea	052-053	5.9	0.6
Venerupis corrugata	Mollusca	112-113	0.6	0.4

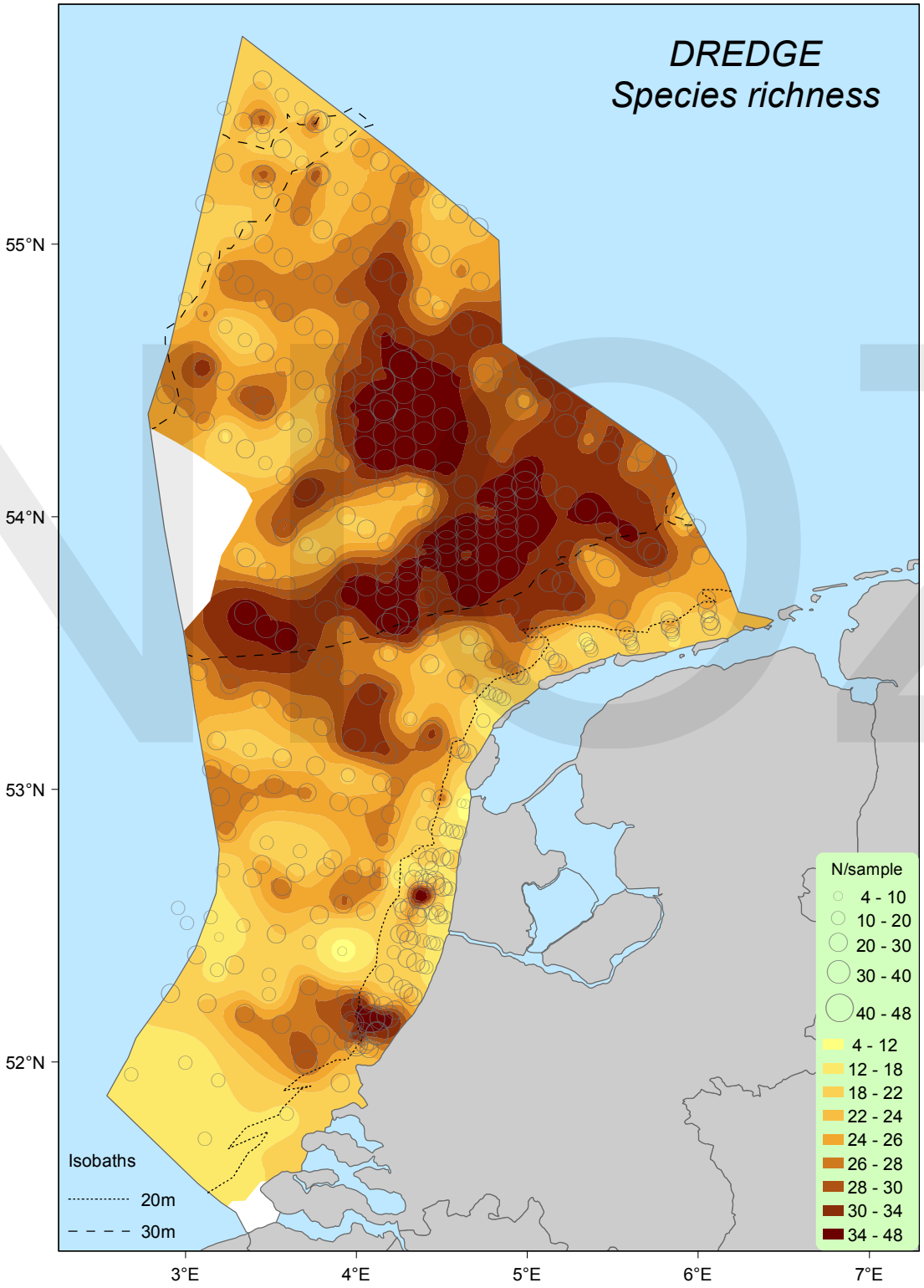

Median Grain Size
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Median Grain Size (µm)
< 63
63 - 94
94 - 125
125 - 190
190 - 250
250 - 375
375 - 500
> 500
station

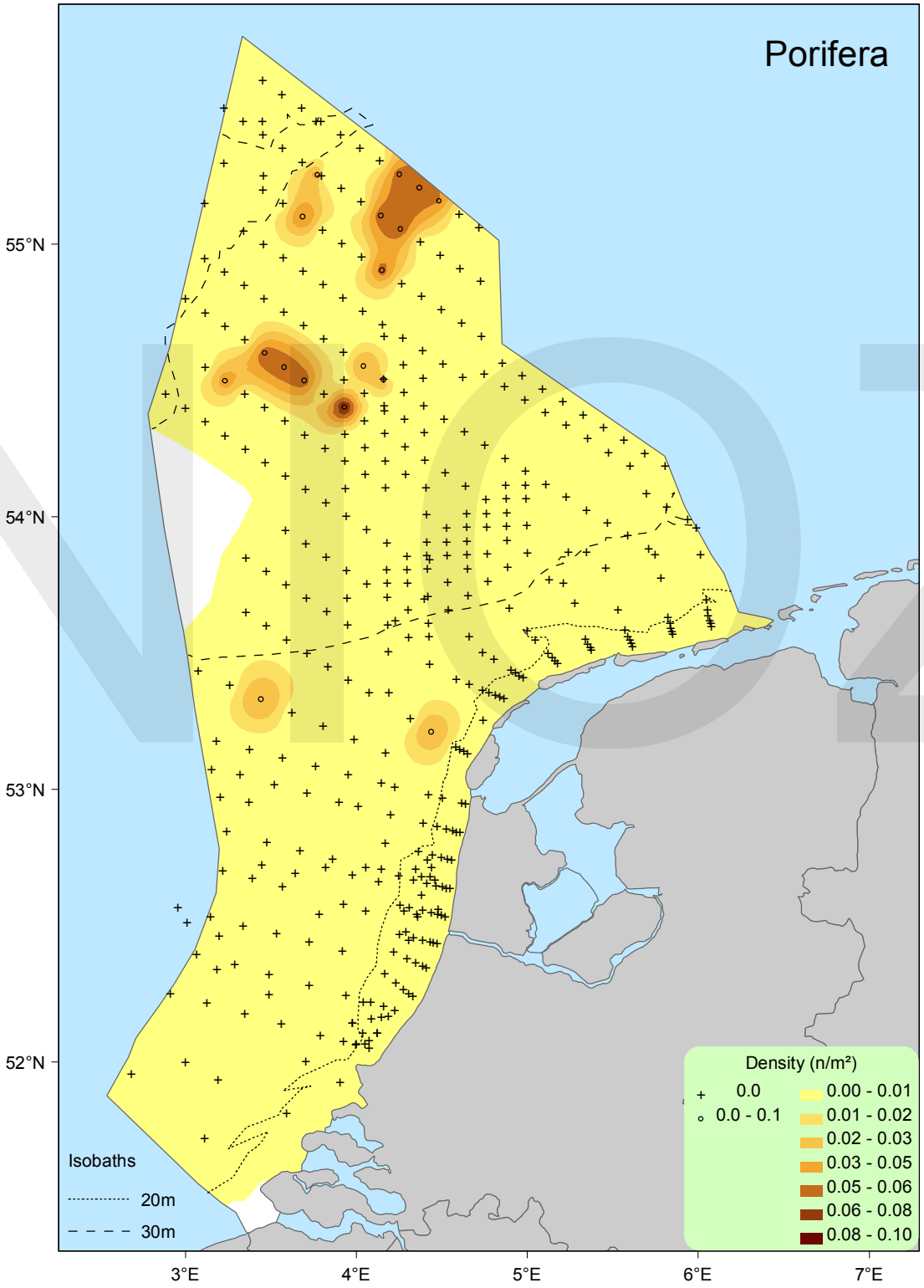
MAP # 1

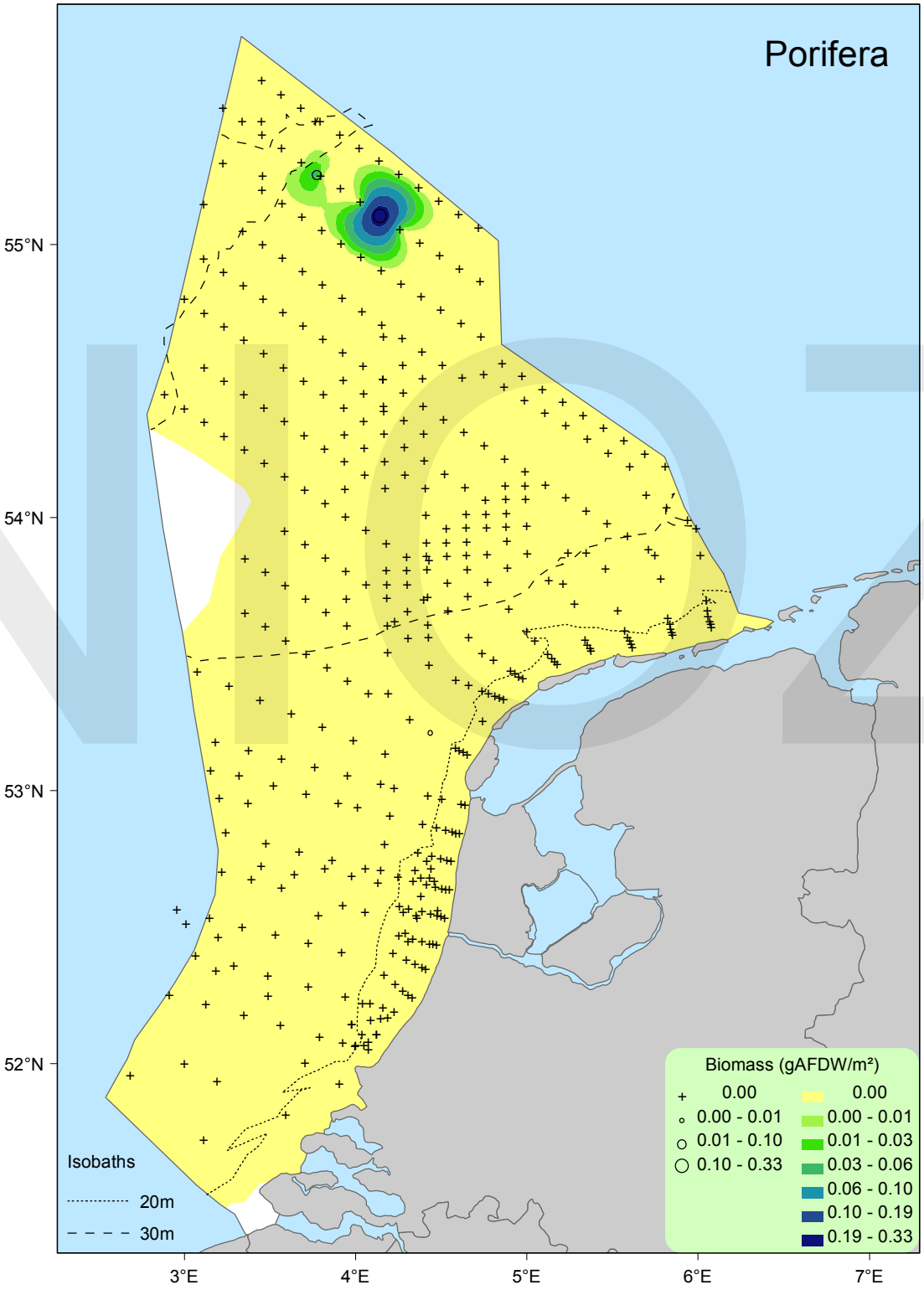

Silt content
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Silt content (%)
< 5
5 - 10
10 - 15
15 - 20
20 - 25
25 - 30
30 - 35
35 - 40
40 - 45
45 - 50
> 50
station

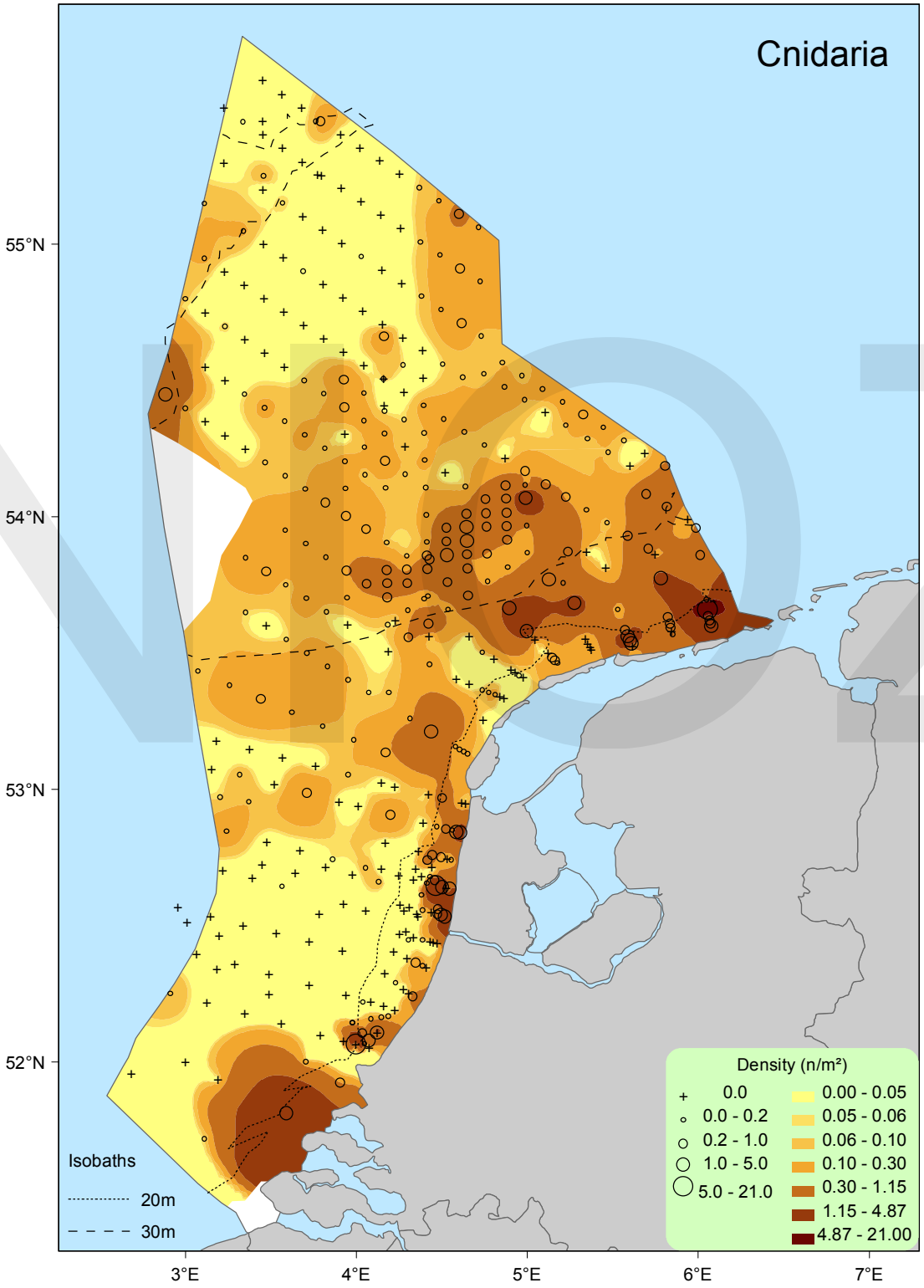

DREDGE
Total Fauna Density
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
N/m²
1 - 4
4 - 13
13 - 50
50 - 200
200 - 879
1 - 9
9 - 11
11 - 12
12 - 14
14 - 21
21 - 43
43 - 107
107 - 299
299 - 879
Isobaths
20m
30m

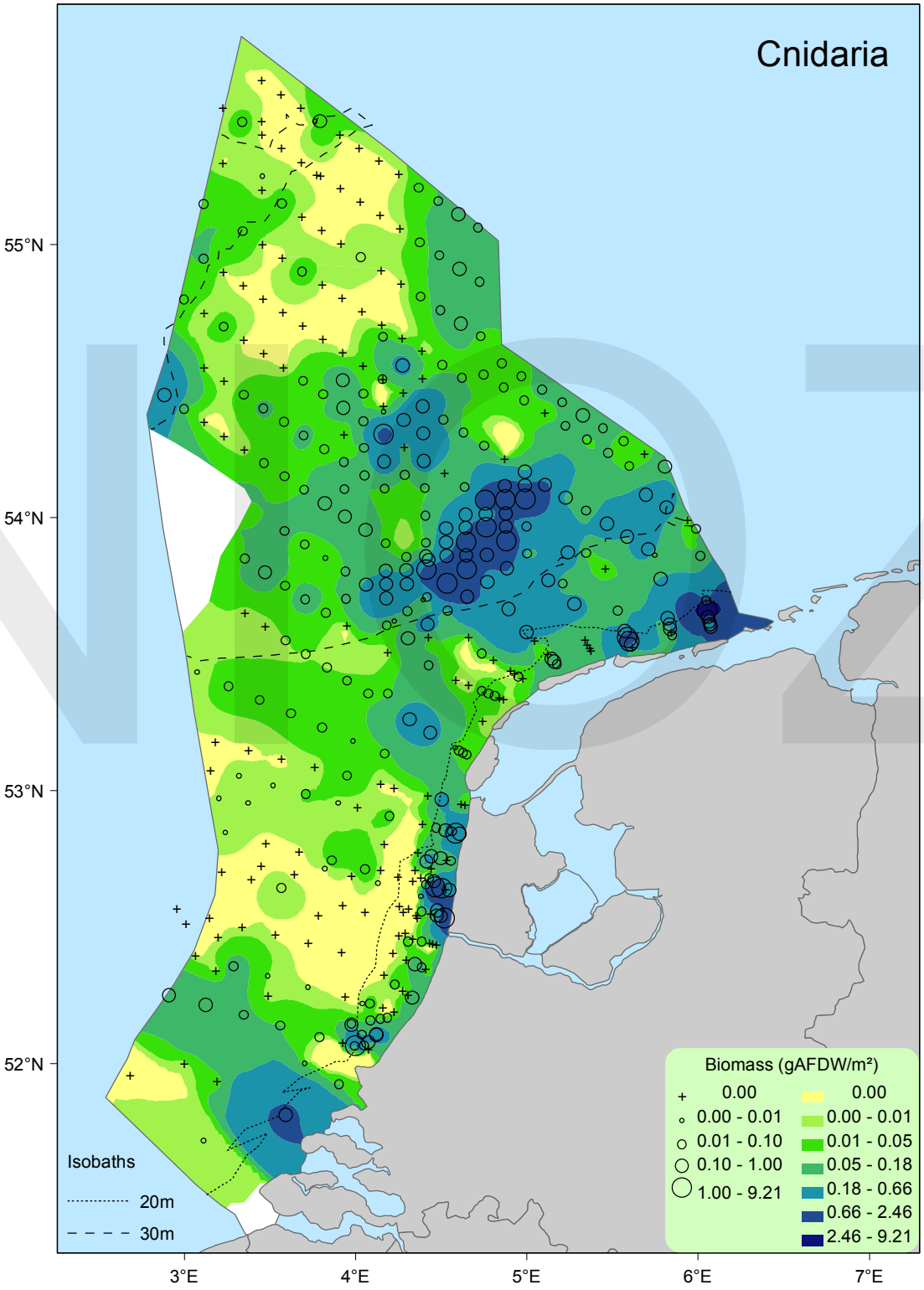

DREDGE
Total Fauna Biomass
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
gAFDW/m²
0.7 - 5.0
5.0 - 6.0
6.0 - 10.0
10.0 - 45.0
45.0 - 315.9
0.7 - 3.9
3.9 - 5.0
5.0 - 5.4
5.4 - 6.6
6.6 - 9.8
9.8 - 18.8
18.8 - 44.1
44.1 - 115.4
115.4 - 315.9
Isobaths
20m
30m

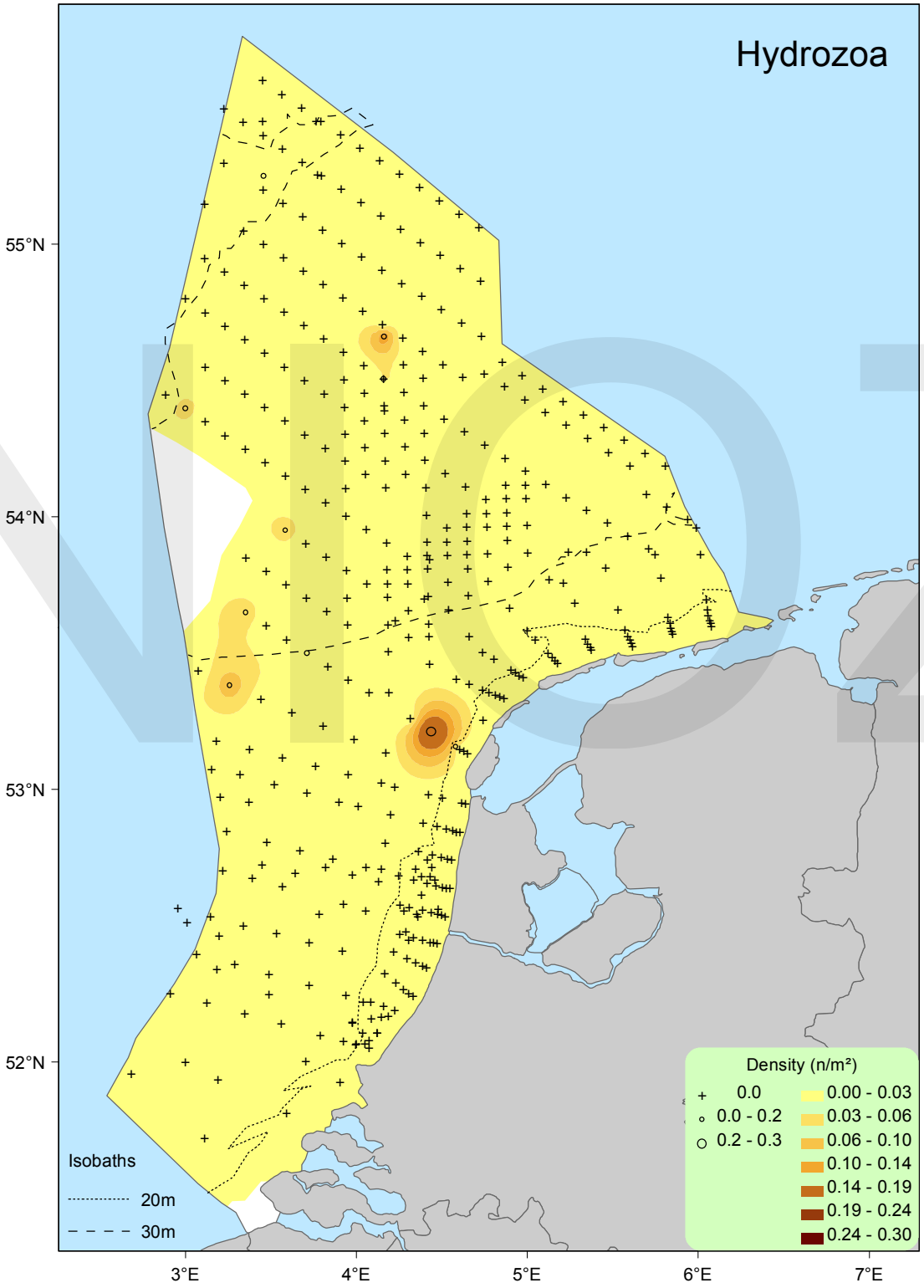

DREDGE
Species richness
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
N/sample
4 - 10
10 - 20
20 - 30
30 - 40
40 - 48
4 - 12
12 - 18
18 - 22
22 - 24
24 - 26
26 - 28
28 - 30
30 - 34
34 - 48
Isobaths
20m
30m

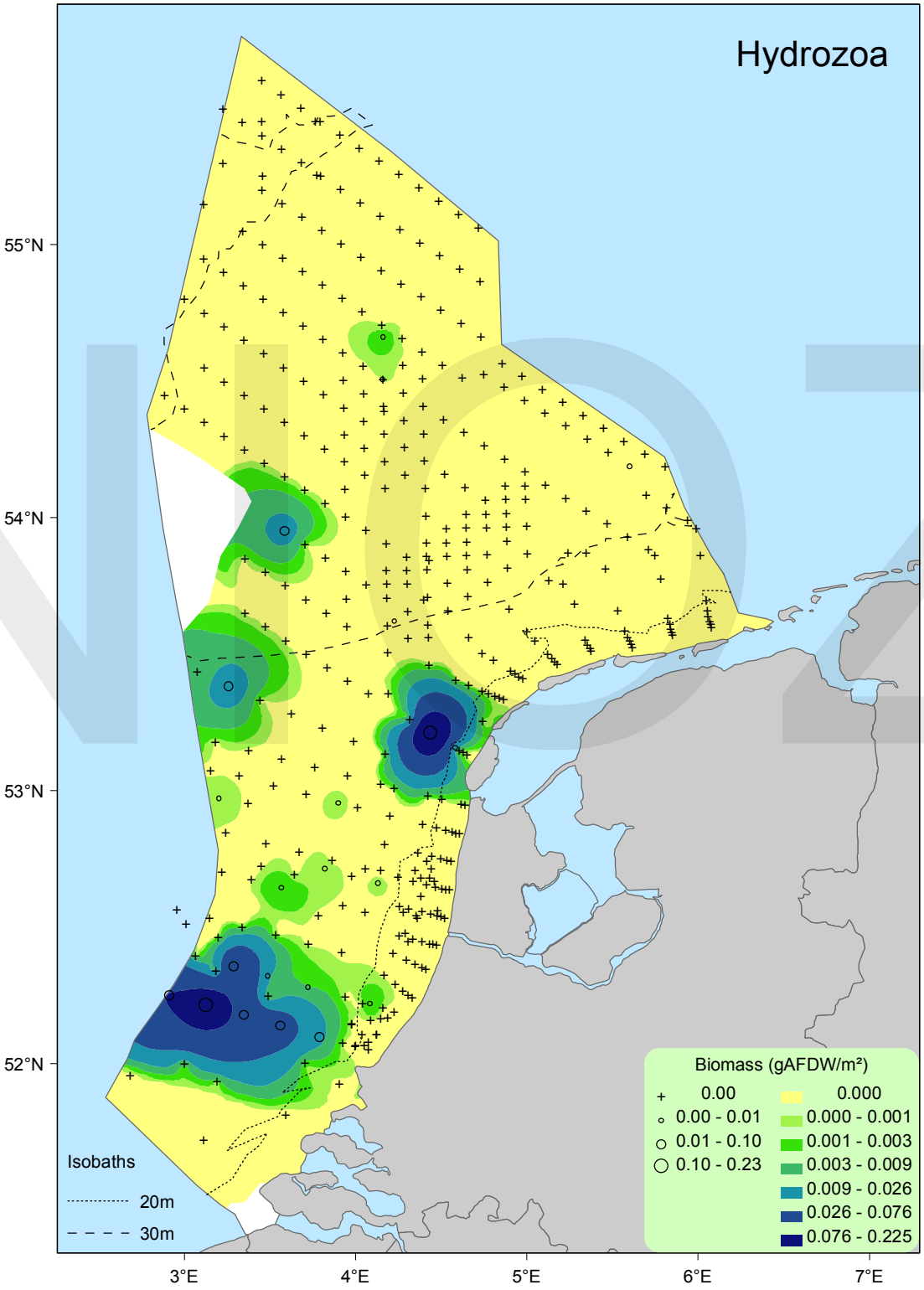

Porifera
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.1
0.00 - 0.01
0.01 - 0.02
0.02 - 0.03
0.03 - 0.05
0.05 - 0.06
0.06 - 0.08
0.08 - 0.10

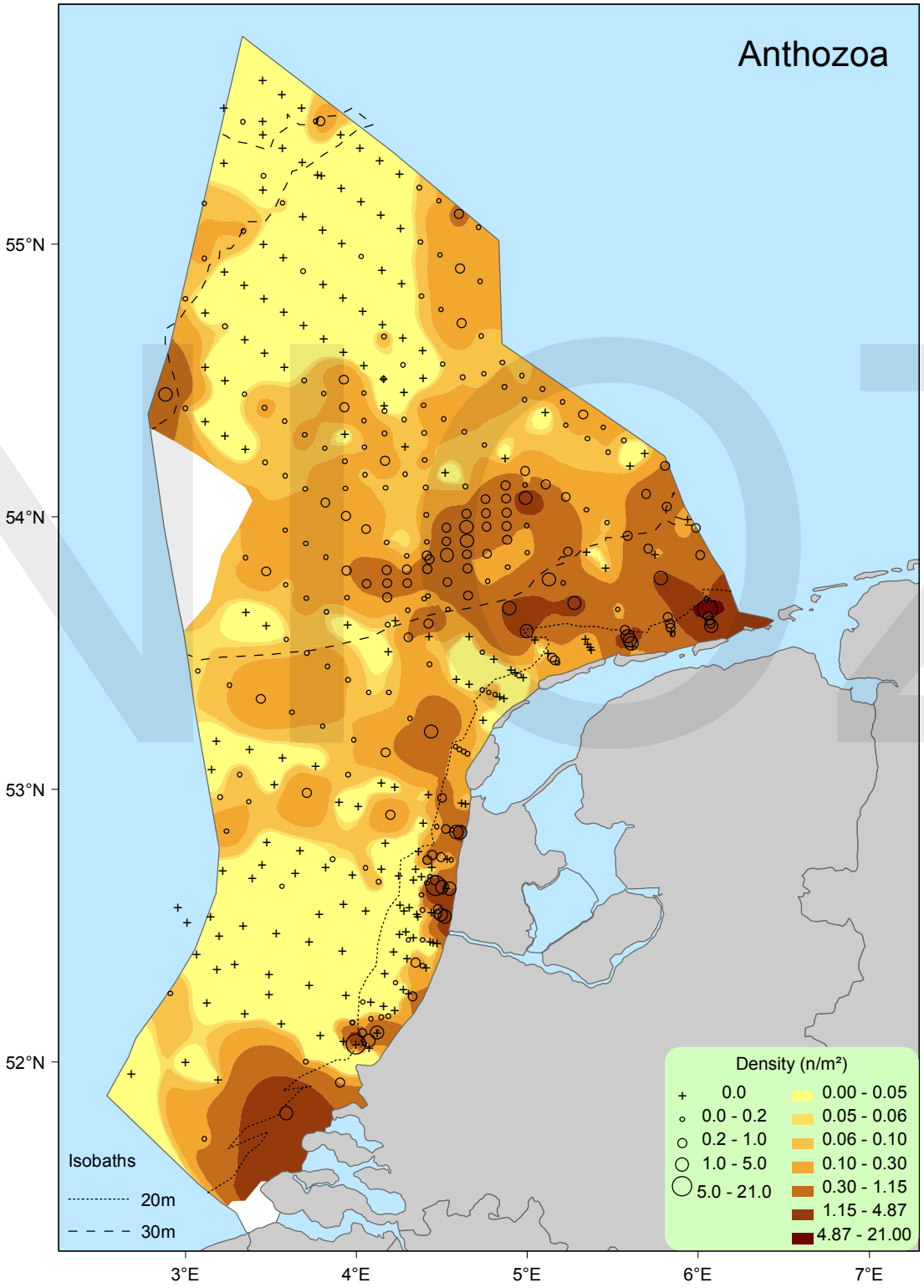

Porifera
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.33
0.00
0.00 - 0.01
0.01 - 0.03
0.03 - 0.06
0.06 - 0.10
0.10 - 0.19
0.19 - 0.33

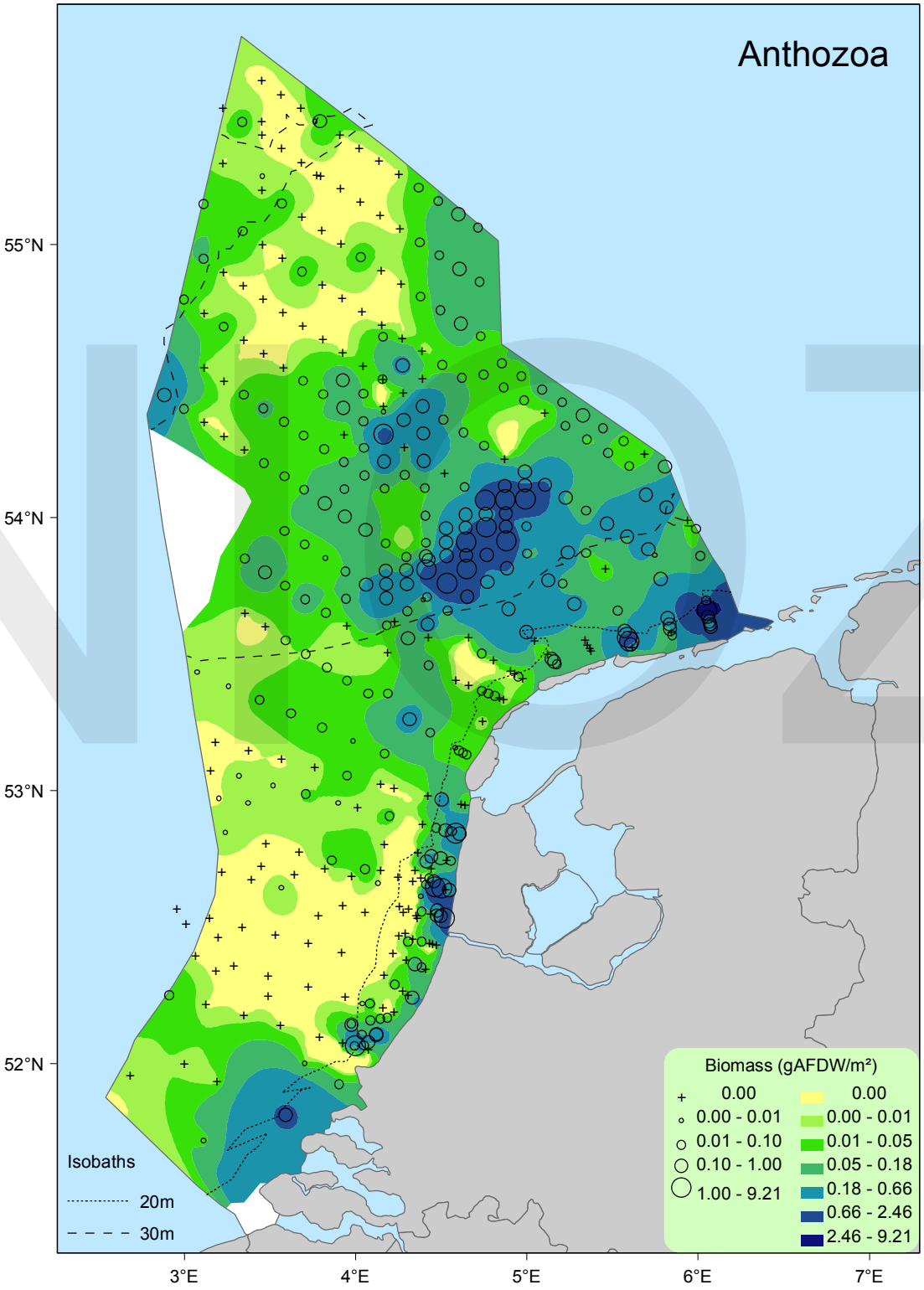

Cnidaria
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 21.0
0.00 - 0.05
0.05 - 0.06
0.06 - 0.10
0.10 - 0.30
0.30 - 1.15
1.15 - 4.87
4.87 - 21.00

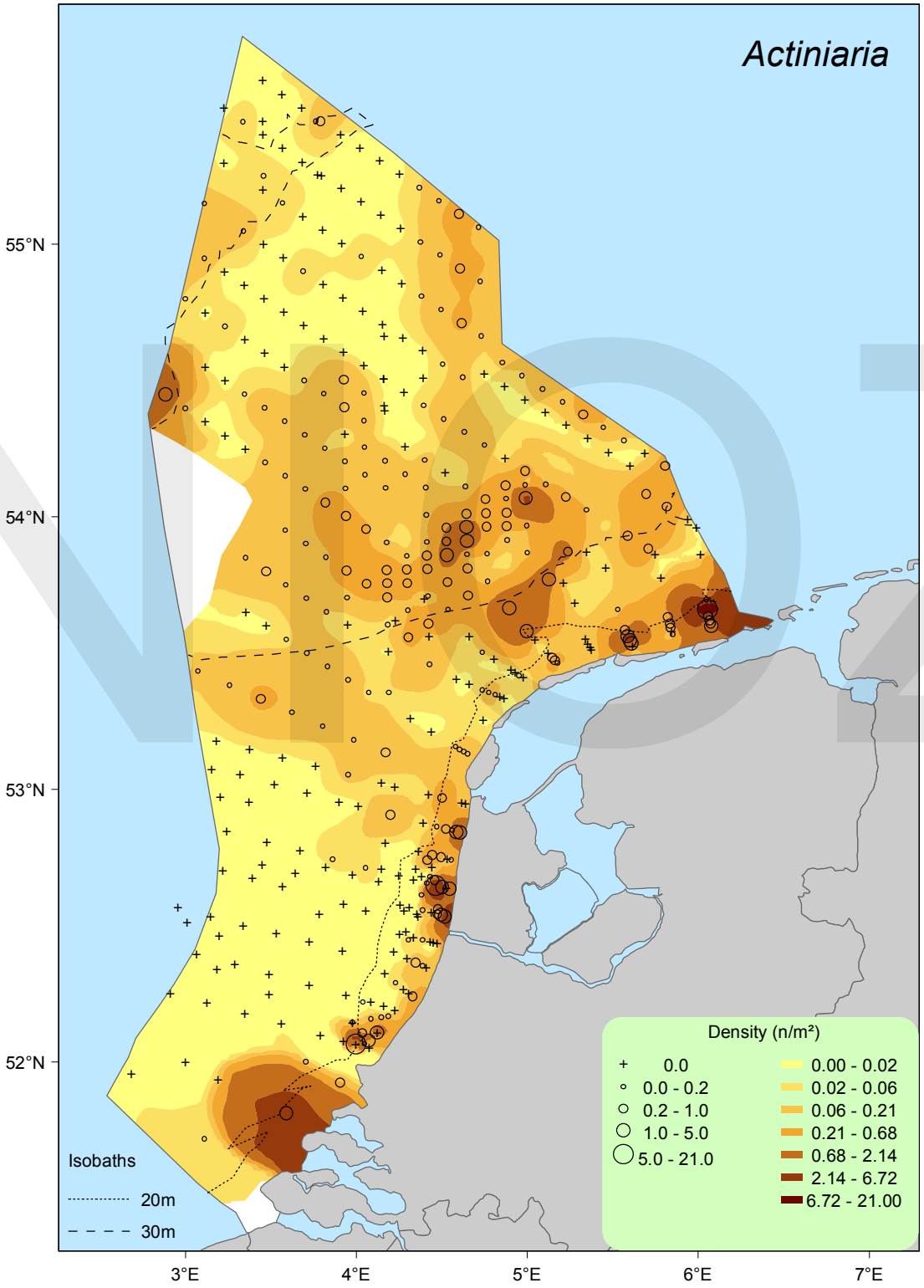

Cnidaria
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 9.21
0.00
0.00 - 0.01
0.01 - 0.05
0.05 - 0.18
0.18 - 0.66
0.66 - 2.46
2.46 - 9.21

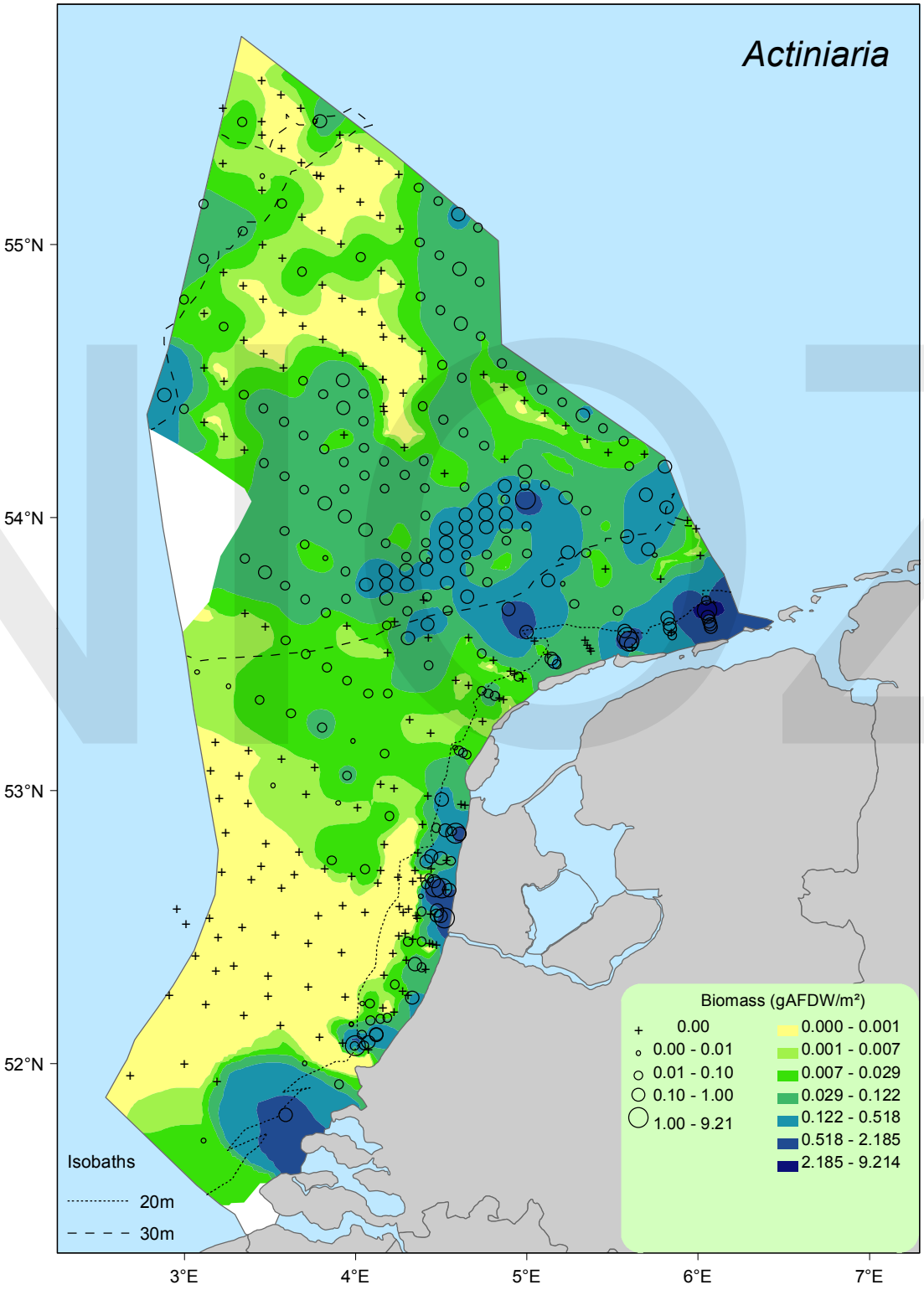

Hydrozoa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.3
0.00 - 0.03
0.03 - 0.06
0.06 - 0.10
0.10 - 0.14
0.14 - 0.19
0.19 - 0.24
0.24 - 0.30

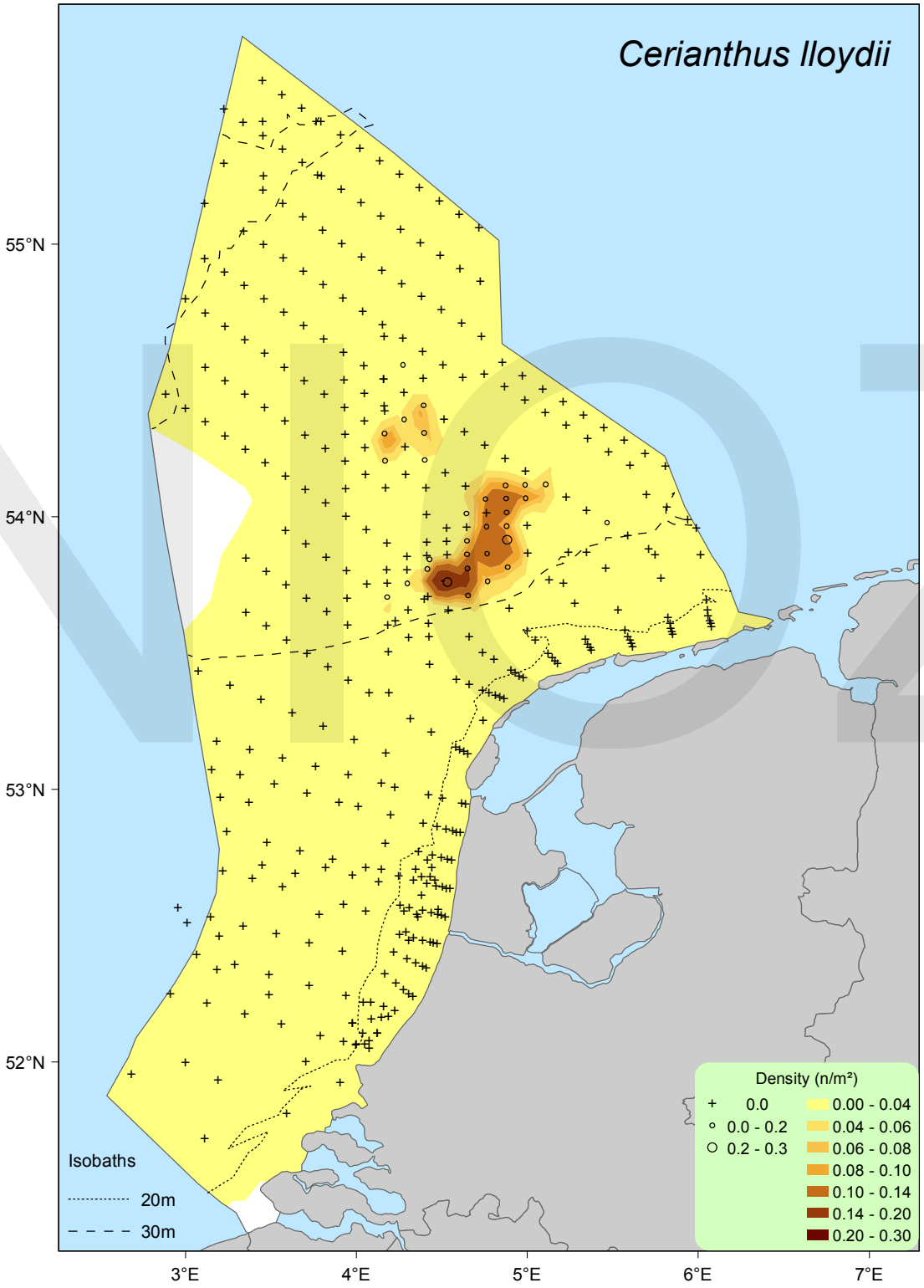

Hydrozoa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.23
0.000
0.000 - 0.001
0.001 - 0.003
0.003 - 0.009
0.009 - 0.026
0.026 - 0.076
0.076 - 0.225

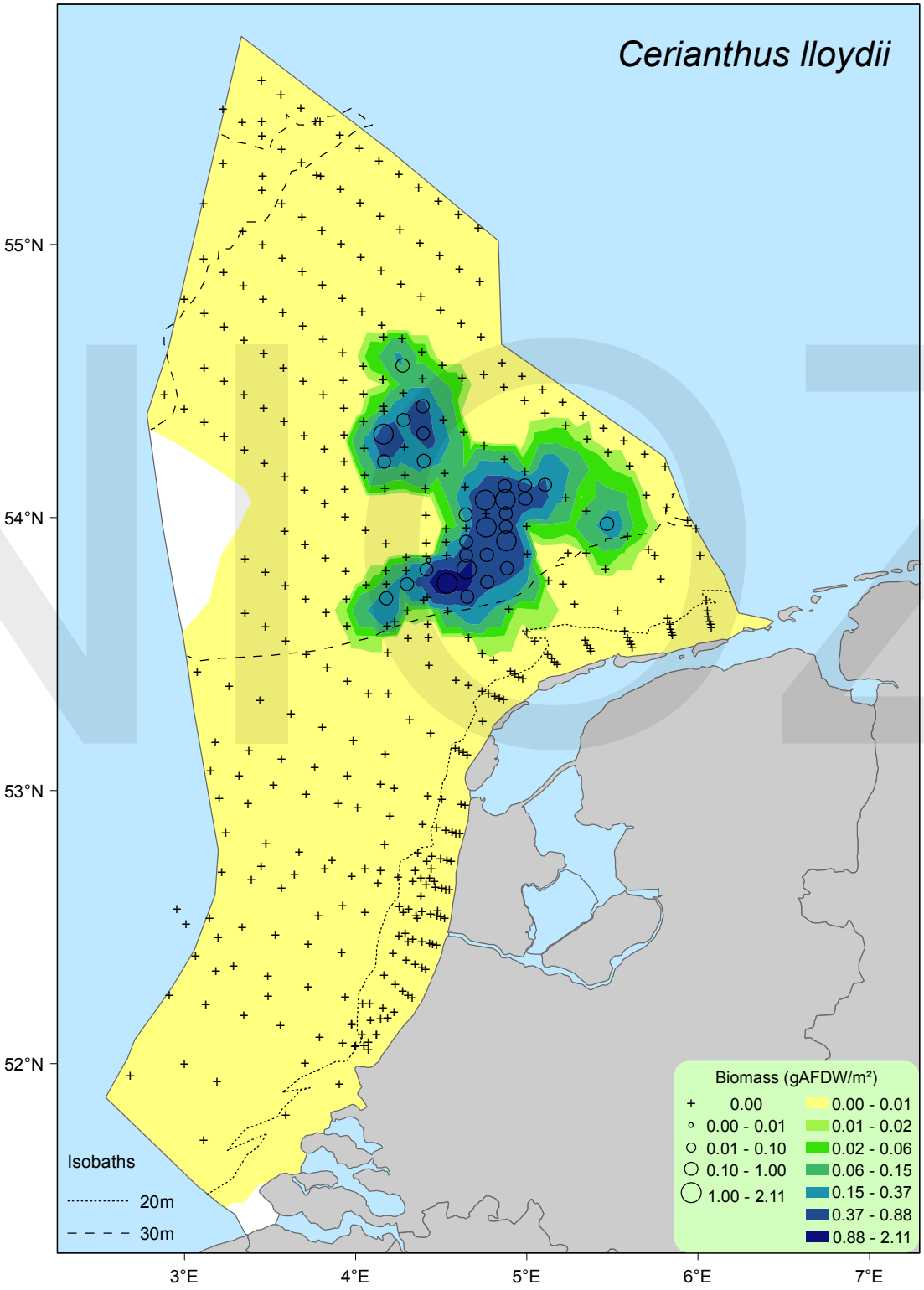

Anthozoa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 21.0
0.00 - 0.05
0.05 - 0.06
0.06 - 0.10
0.10 - 0.30
0.30 - 1.15
1.15 - 4.87
4.87 - 21.00

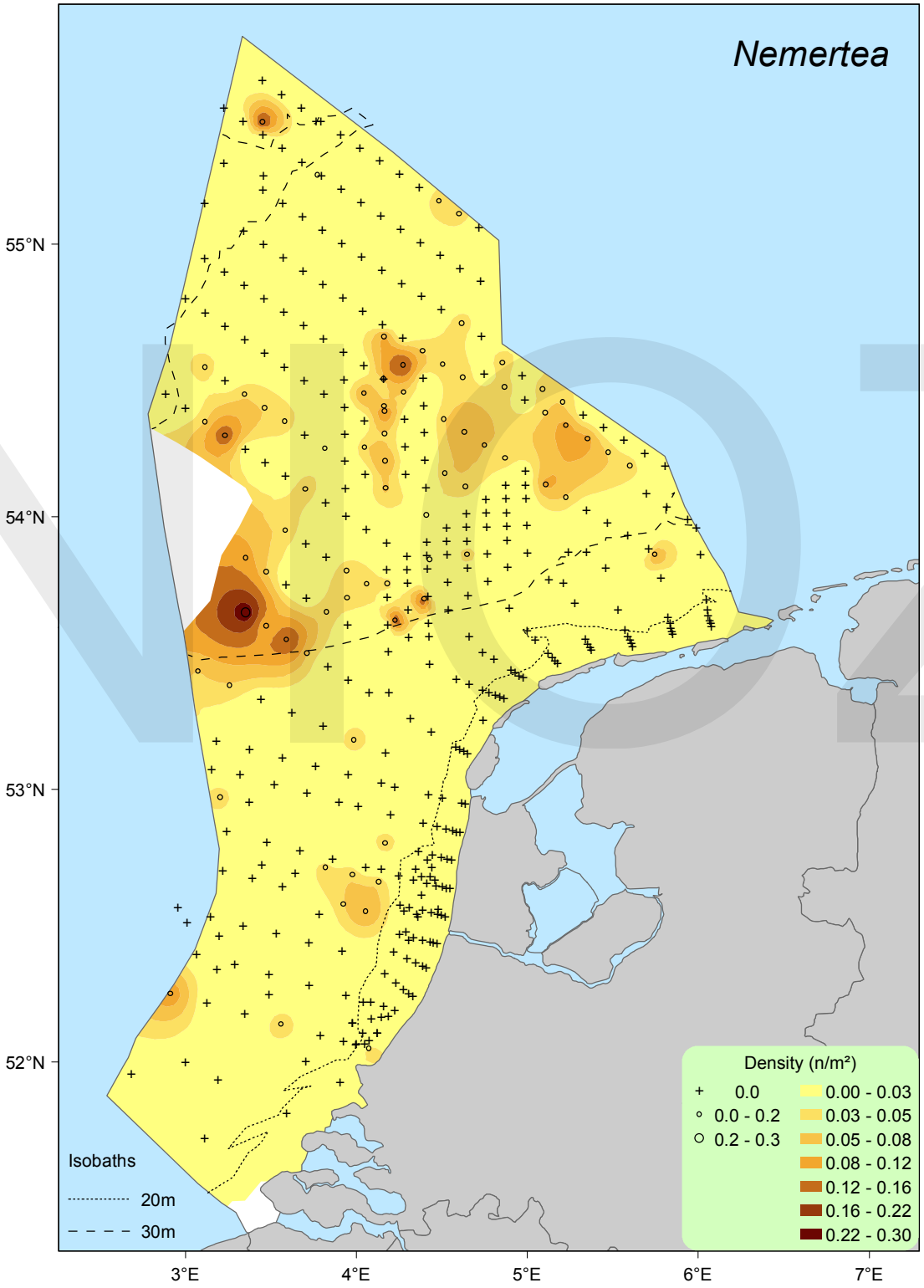

Anthozoa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 9.21
0.00
0.00 - 0.01
0.01 - 0.05
0.05 - 0.18
0.18 - 0.66
0.66 - 2.46
2.46 - 9.21

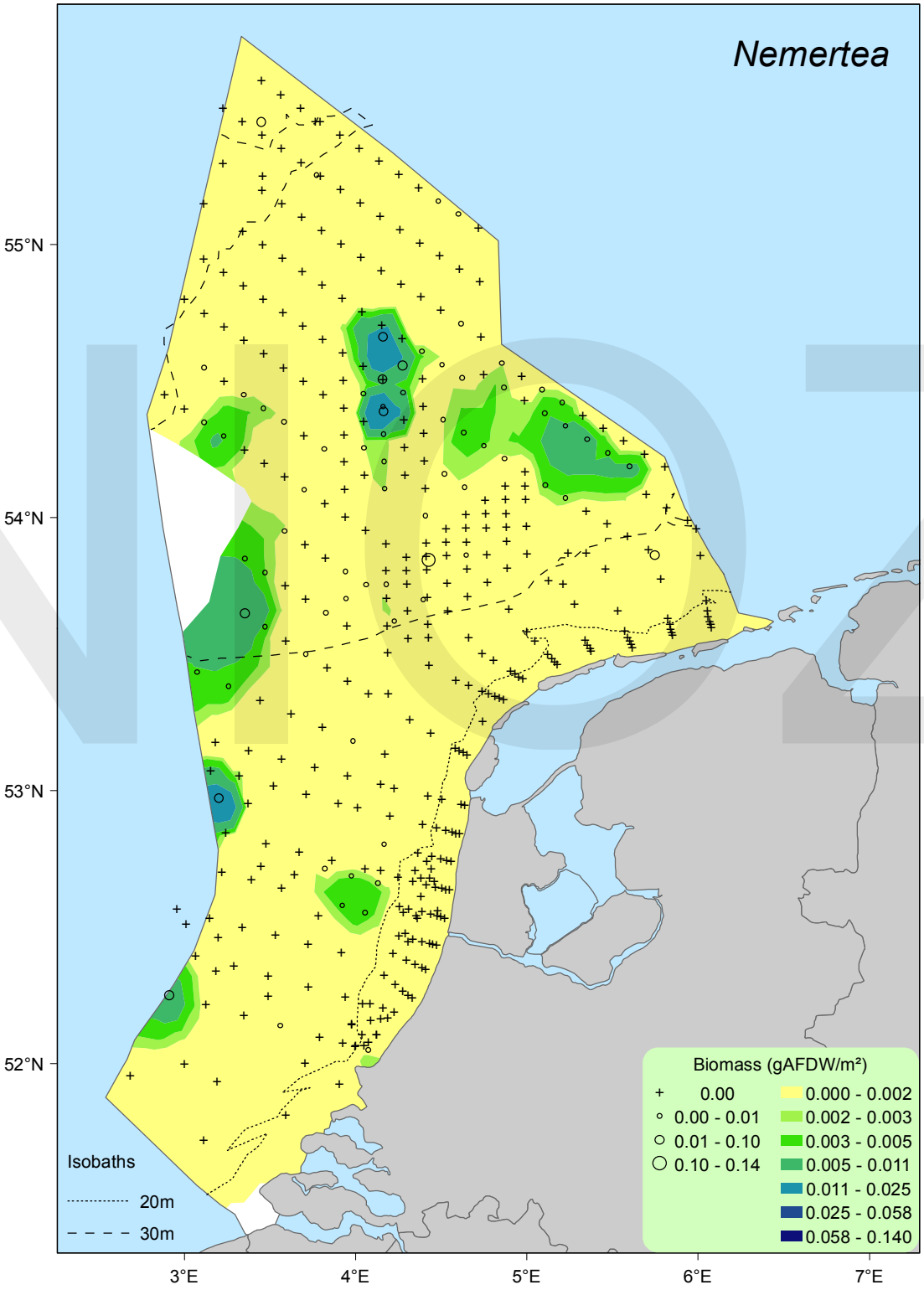

Actiniaria
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 21.0
0.00 - 0.02
0.02 - 0.06
0.06 - 0.21
0.21 - 0.68
0.68 - 2.14
2.14 - 6.72
6.72 - 21.00

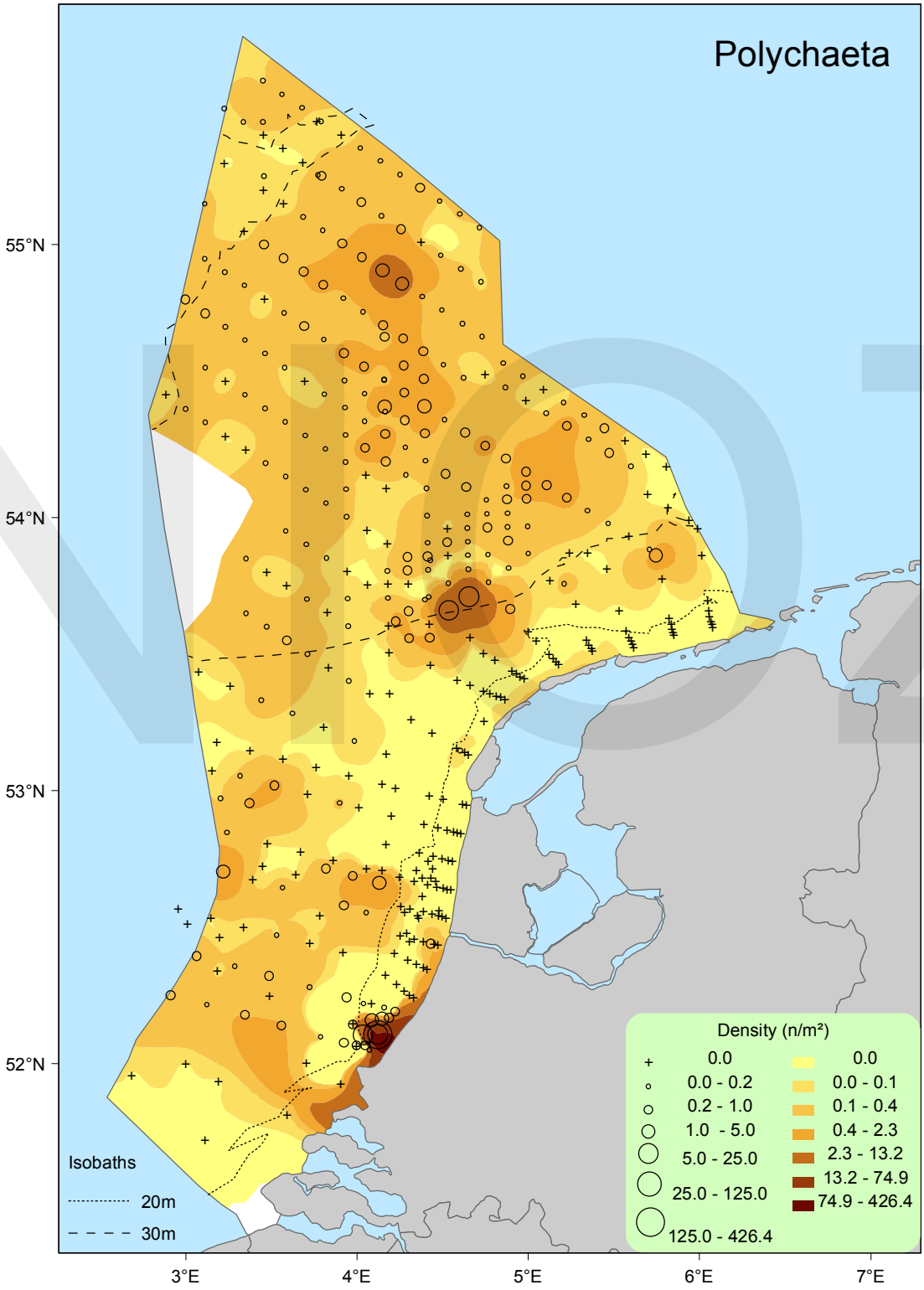

Actiniaria
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 9.21
0.000 - 0.001
0.001 - 0.007
0.007 - 0.029
0.029 - 0.122
0.122 - 0.518
0.518 - 2.185
2.185 - 9.214
Isobaths
20m
30m

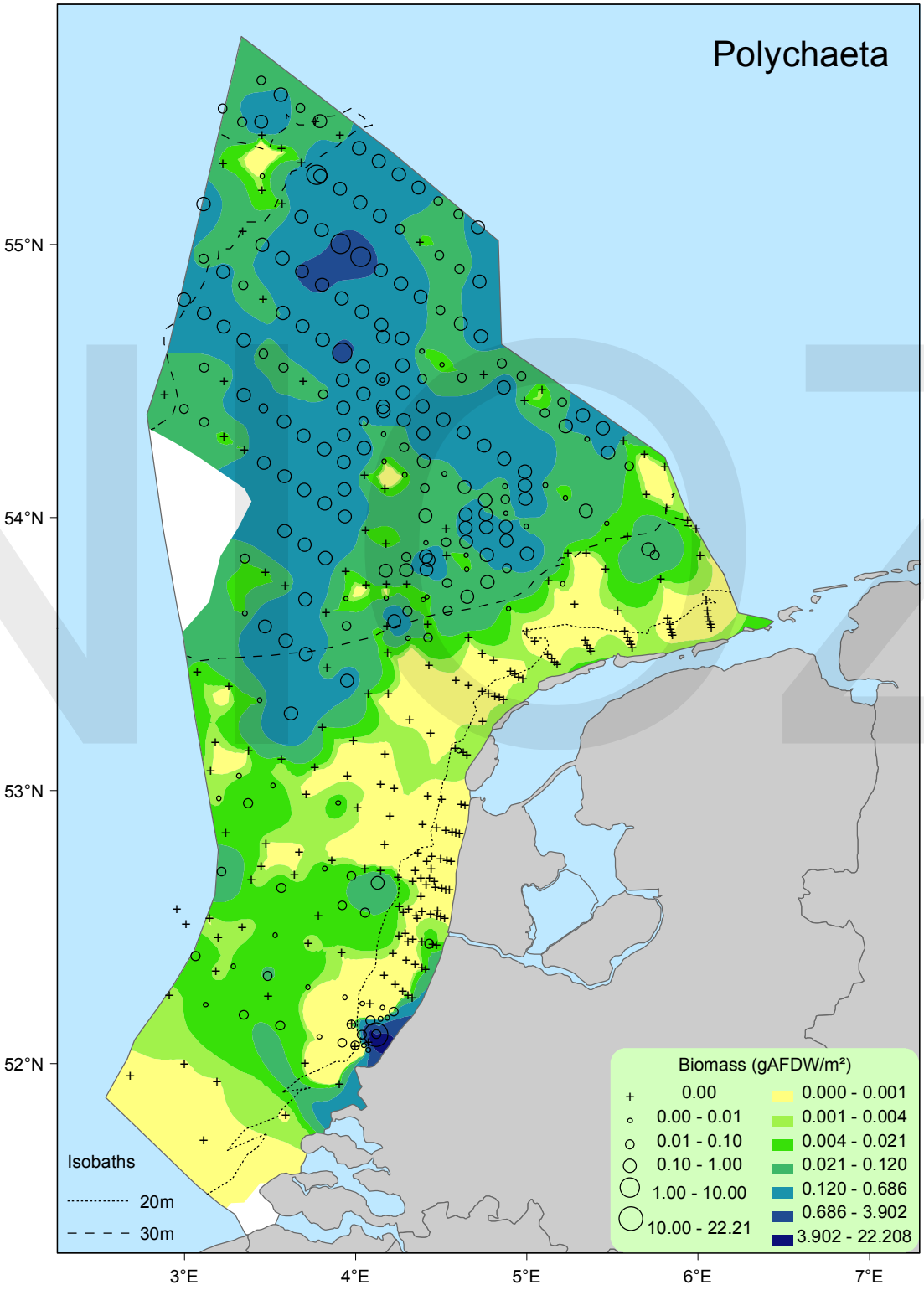

Cerianthus lloydii
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.3
0.00 - 0.04
0.04 - 0.06
0.06 - 0.08
0.08 - 0.10
0.10 - 0.14
0.14 - 0.20
0.20 - 0.30

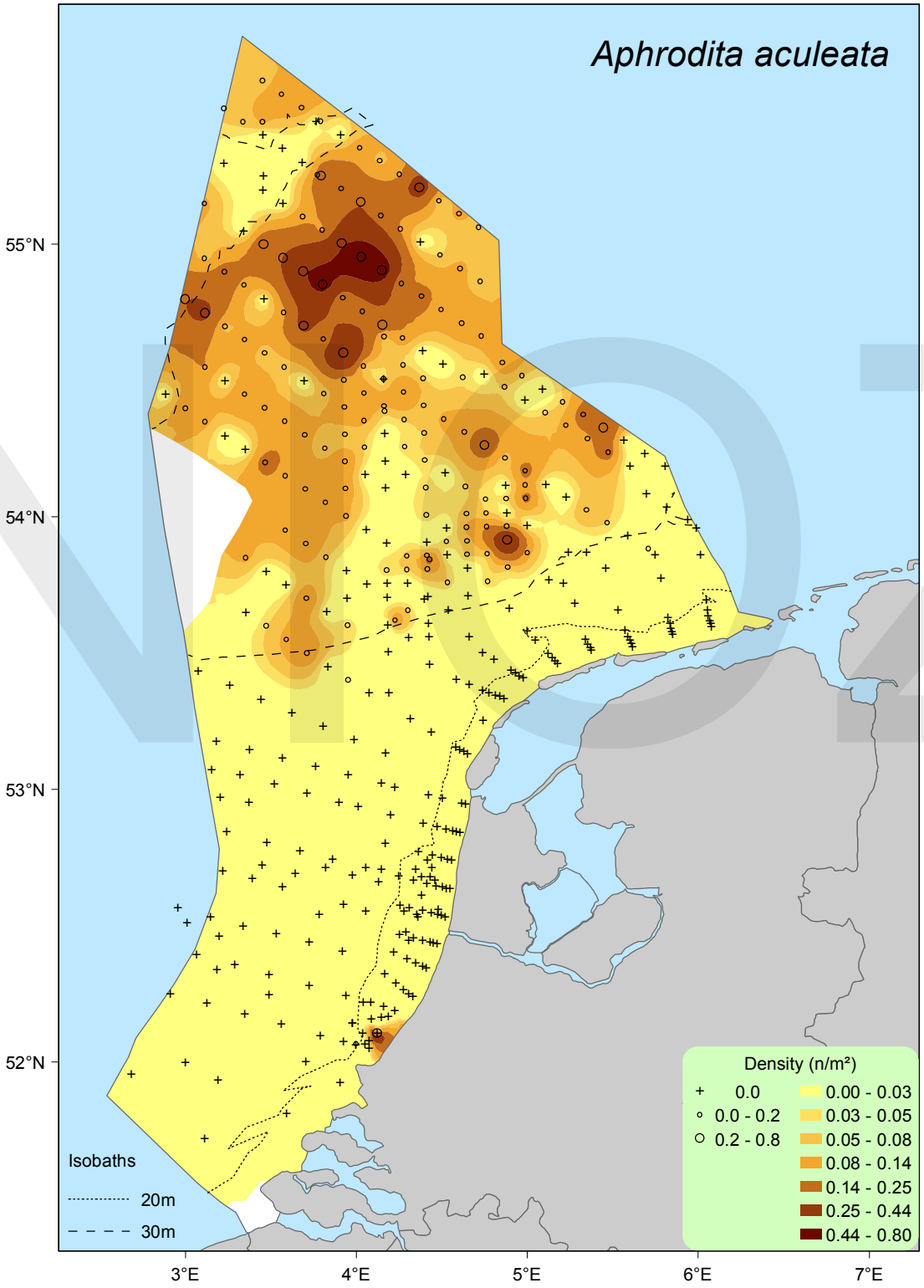

Cerianthus lloydii
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 2.11
0.00 - 0.01
0.01 - 0.02
0.02 - 0.06
0.06 - 0.15
0.15 - 0.37
0.37 - 0.88
0.88 - 2.11

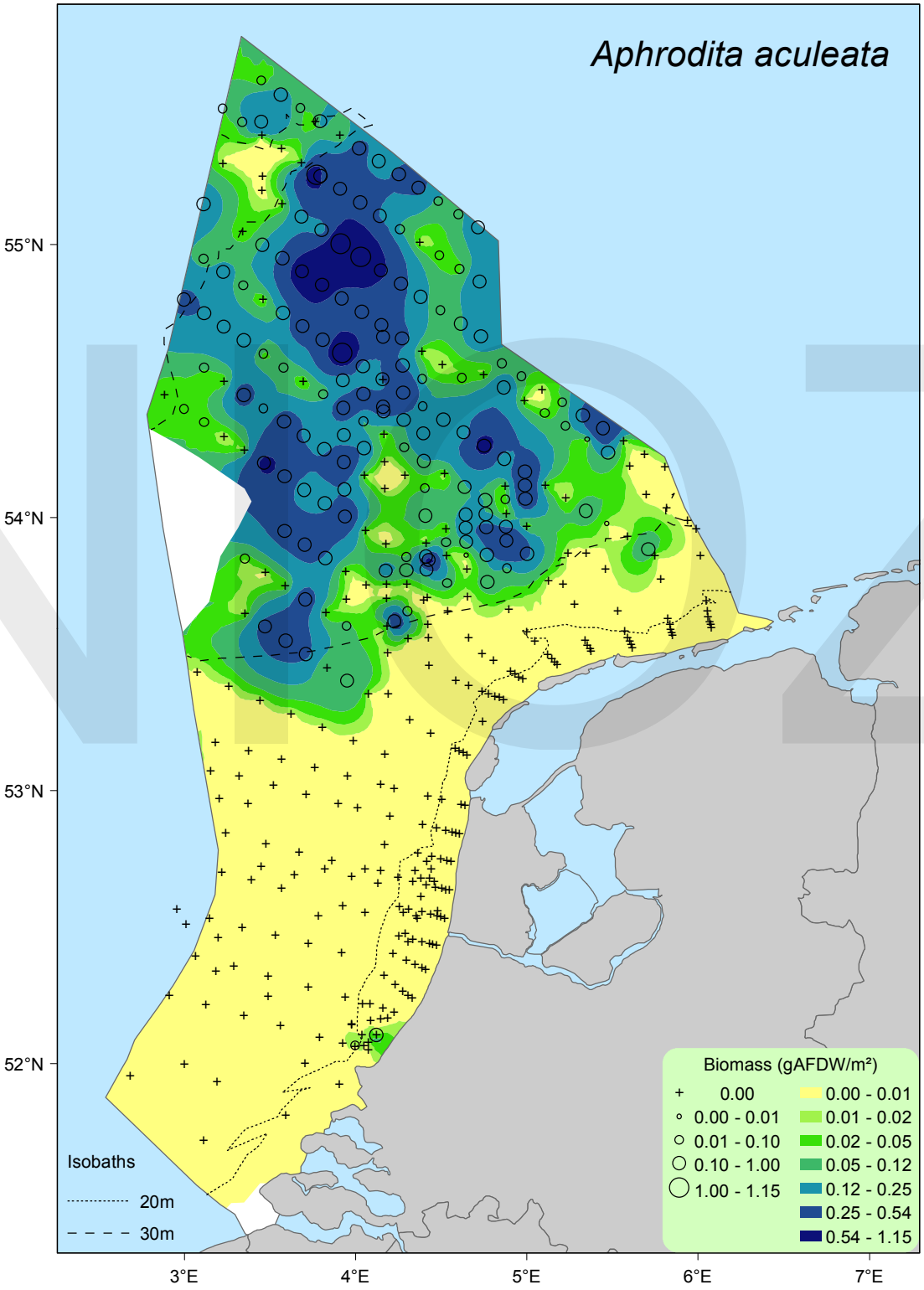

Nemertea
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.3
0.00 - 0.03
0.03 - 0.05
0.05 - 0.08
0.08 - 0.12
0.12 - 0.16
0.16 - 0.22
0.22 - 0.30

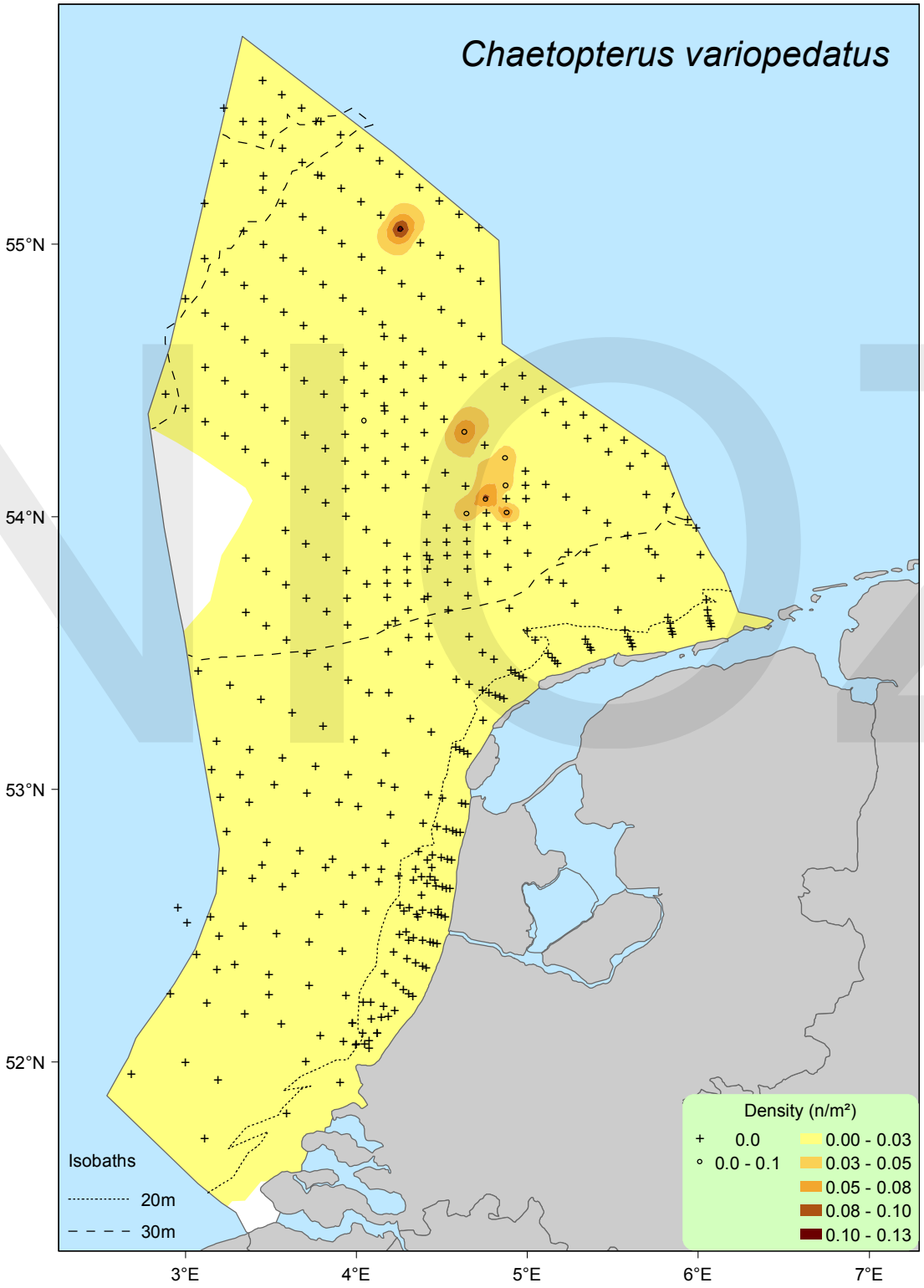

Nemertea
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.14
0.000 - 0.002
0.002 - 0.003
0.003 - 0.005
0.005 - 0.011
0.011 - 0.025
0.025 - 0.058
0.058 - 0.140

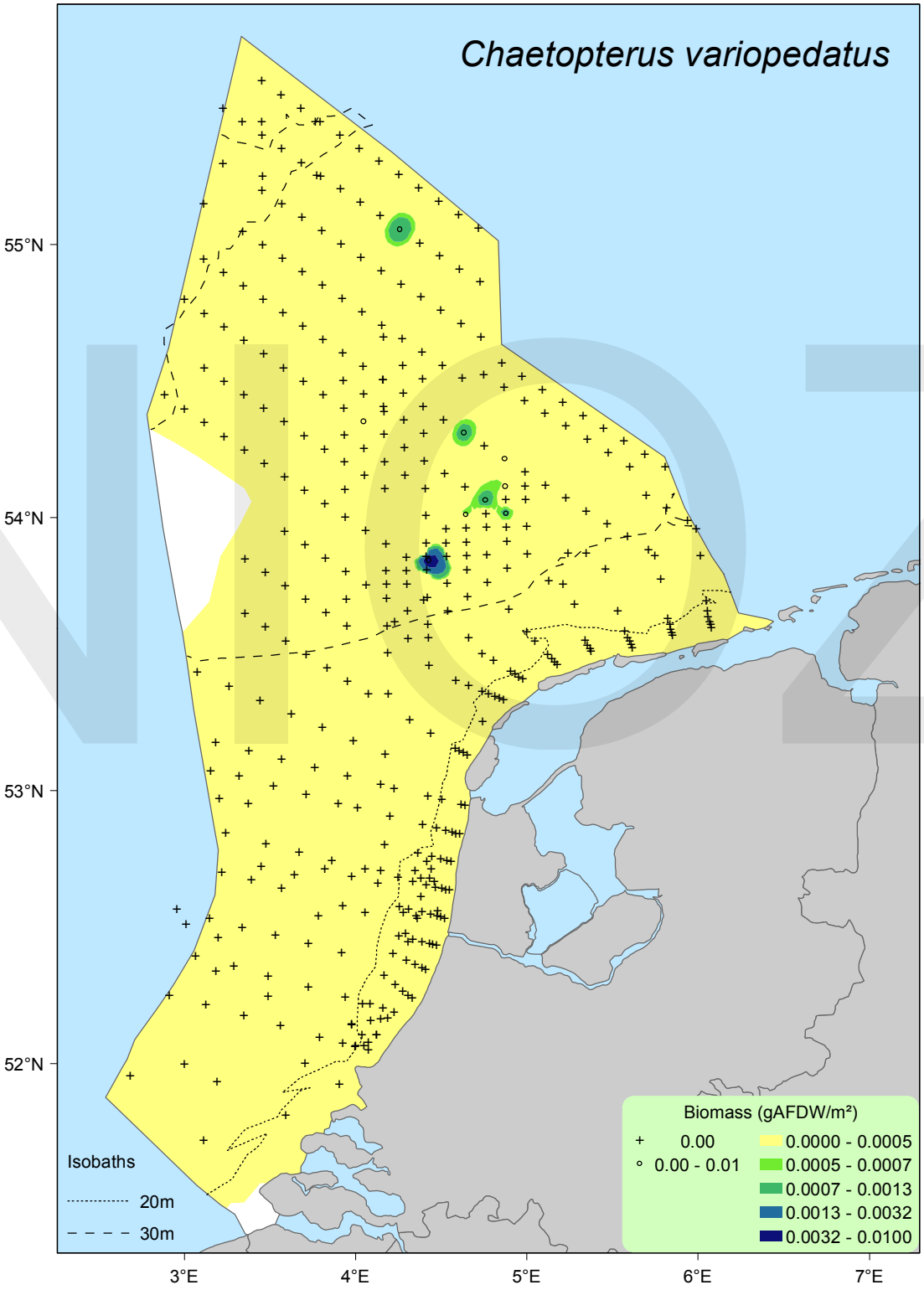

Polychaeta
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 426.4
0.0
0.0 - 0.1
0.1 - 0.4
0.4 - 2.3
2.3 - 13.2
13.2 - 74.9
74.9 - 426.4

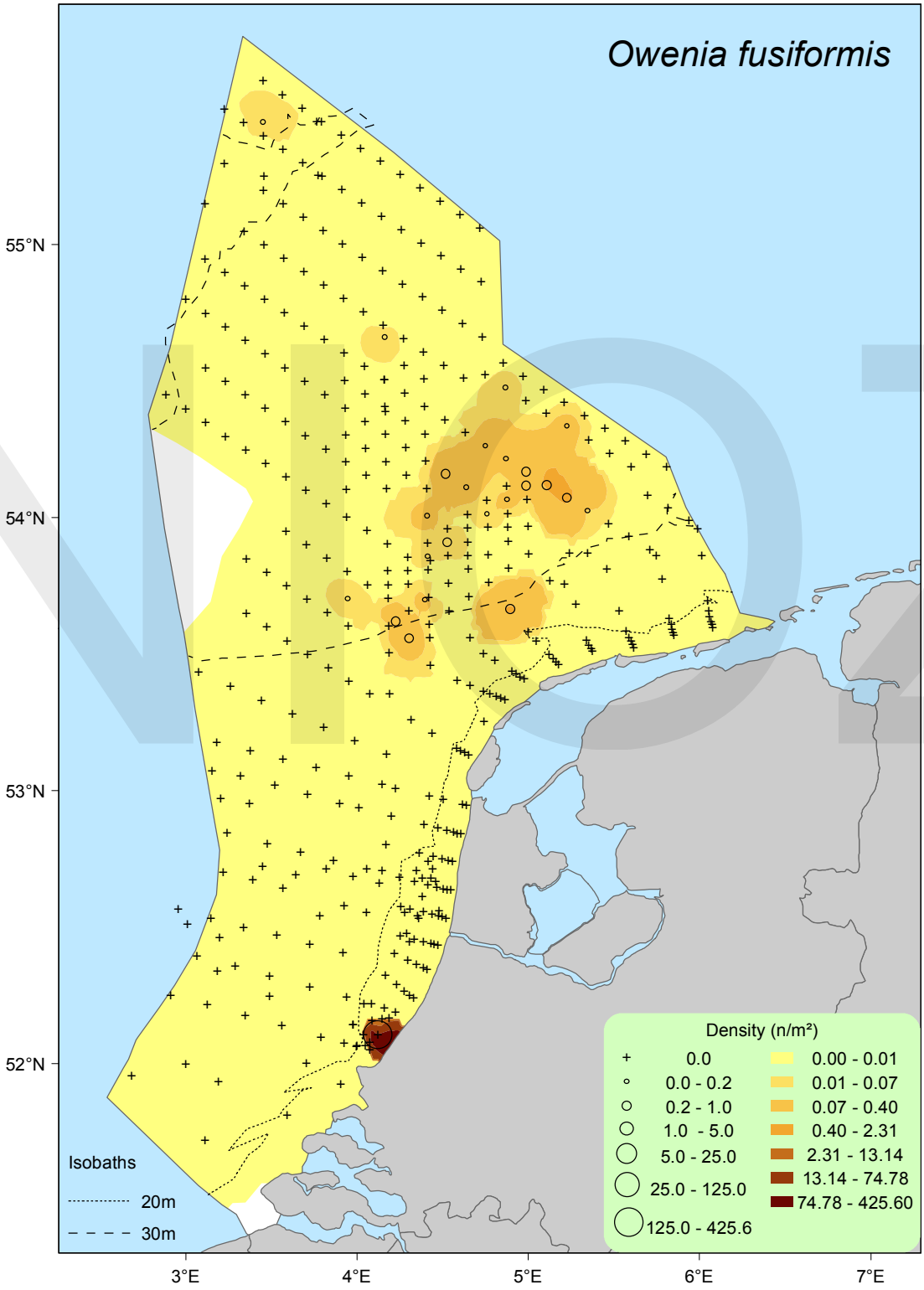

Polychaeta
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 22.21
0.000 - 0.001
0.001 - 0.004
0.004 - 0.021
0.021 - 0.120
0.120 - 0.686
0.686 - 3.902
3.902 - 22.208

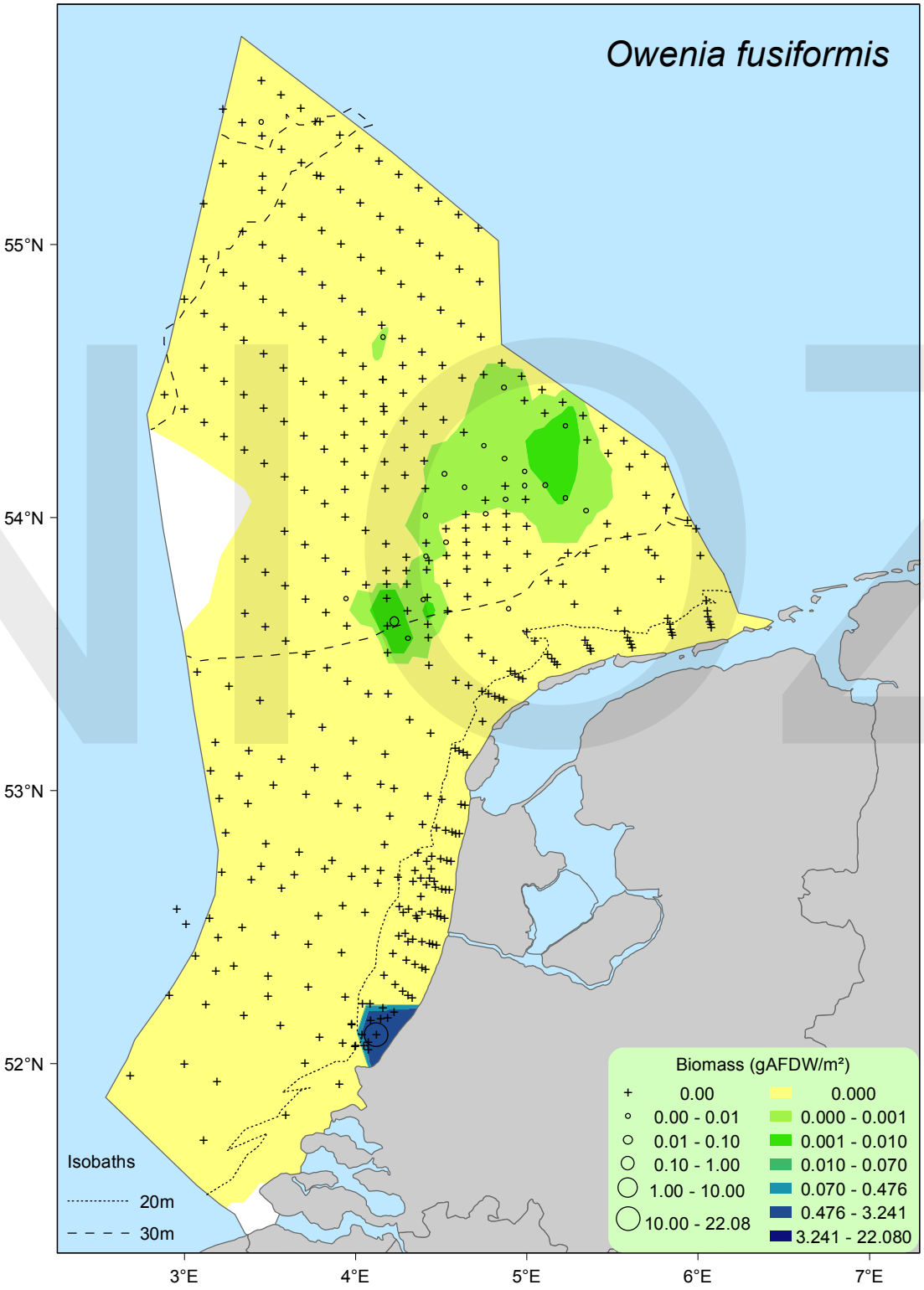

Aphrodita aculeata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.8
0.00 - 0.03
0.03 - 0.05
0.05 - 0.08
0.08 - 0.14
0.14 - 0.25
0.25 - 0.44
0.44 - 0.80

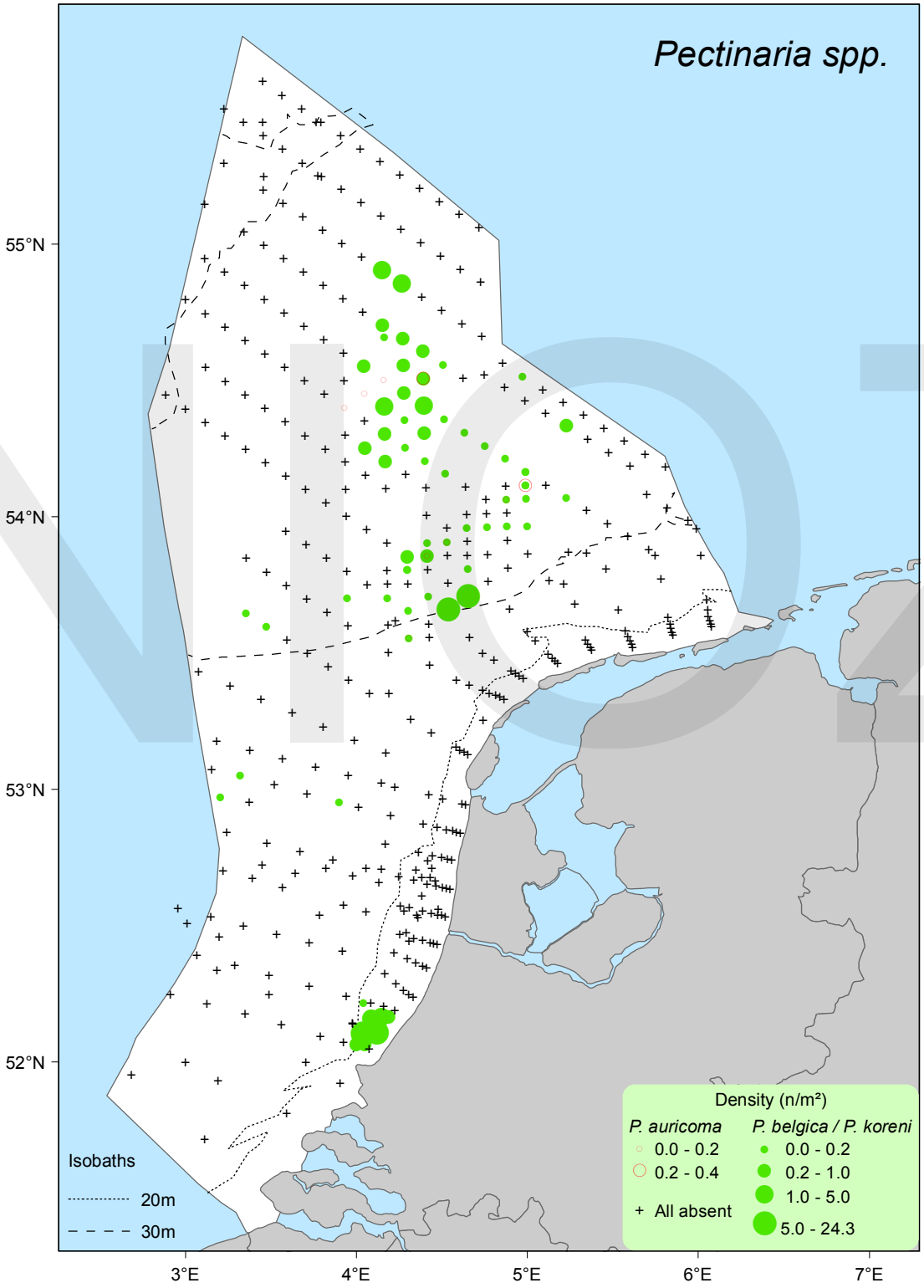

Aphrodita aculeata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.15
0.00 - 0.01
0.01 - 0.02
0.02 - 0.05
0.05 - 0.12
0.12 - 0.25
0.25 - 0.54
0.54 - 1.15

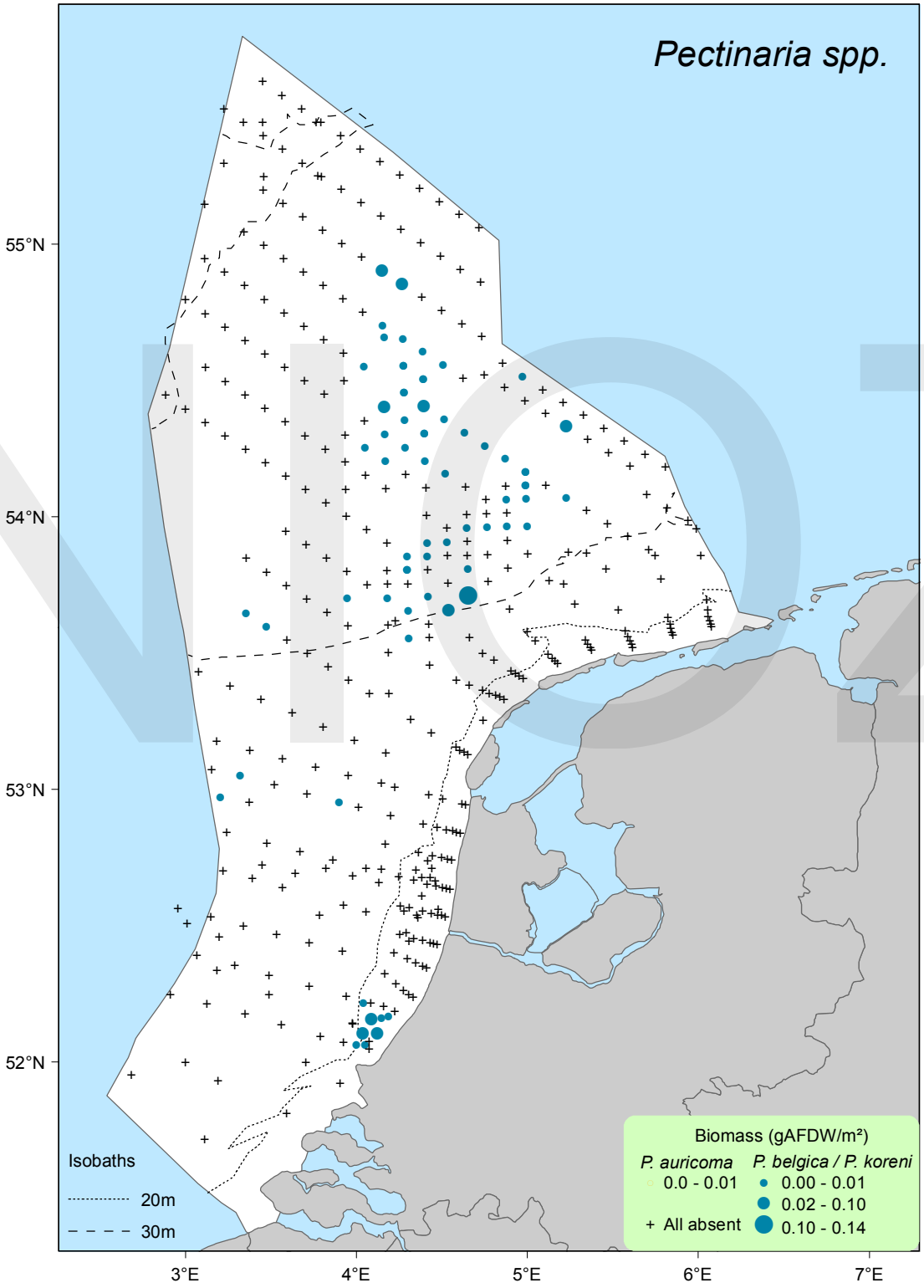

Chaetopterus variopedatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.1
0.00 - 0.03
0.03 - 0.05
0.05 - 0.08
0.08 - 0.10
0.10 - 0.13

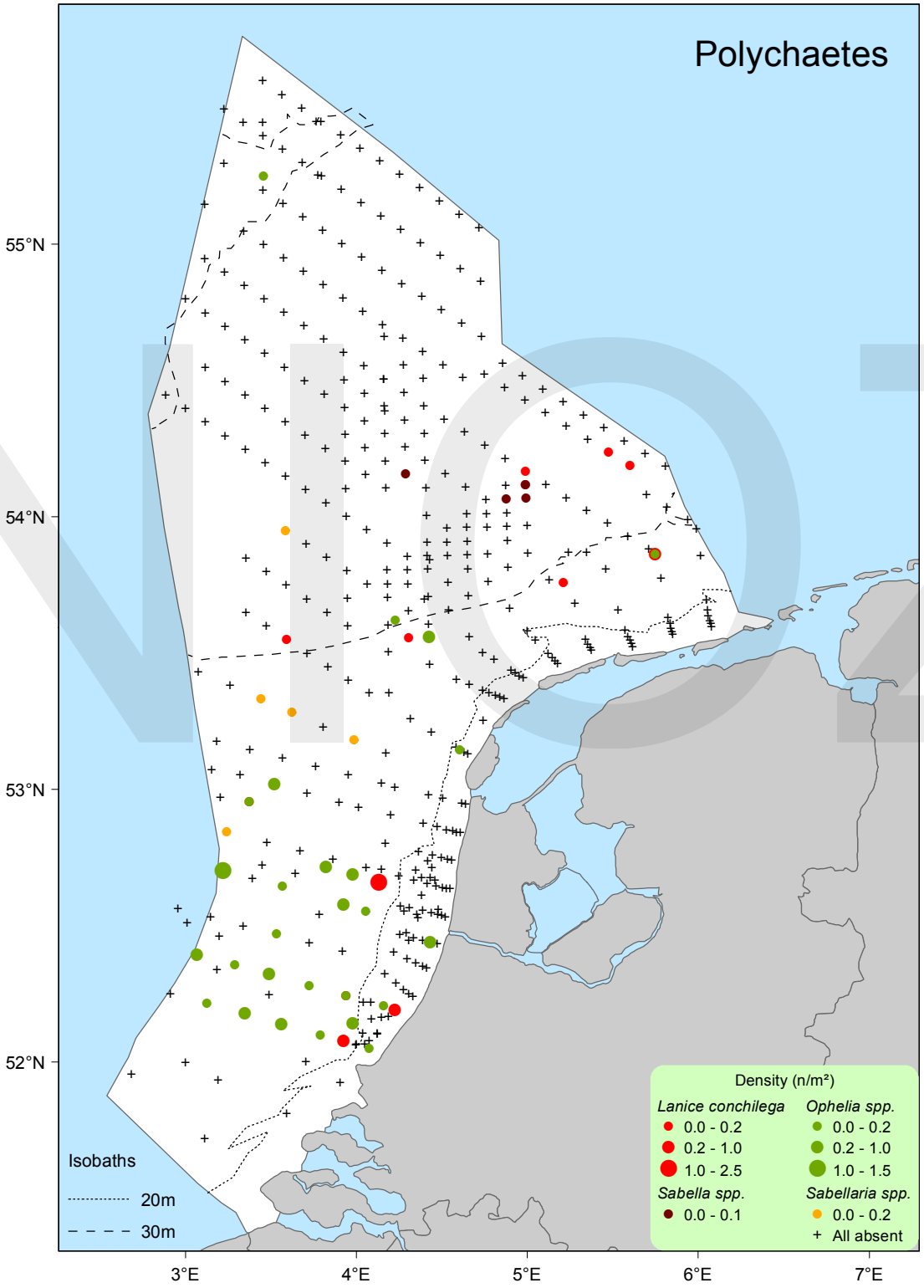

Chaetopterus variopedatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.0000 - 0.0005
0.0005 - 0.0007
0.0007 - 0.0013
0.0013 - 0.0032
0.0032 - 0.0100

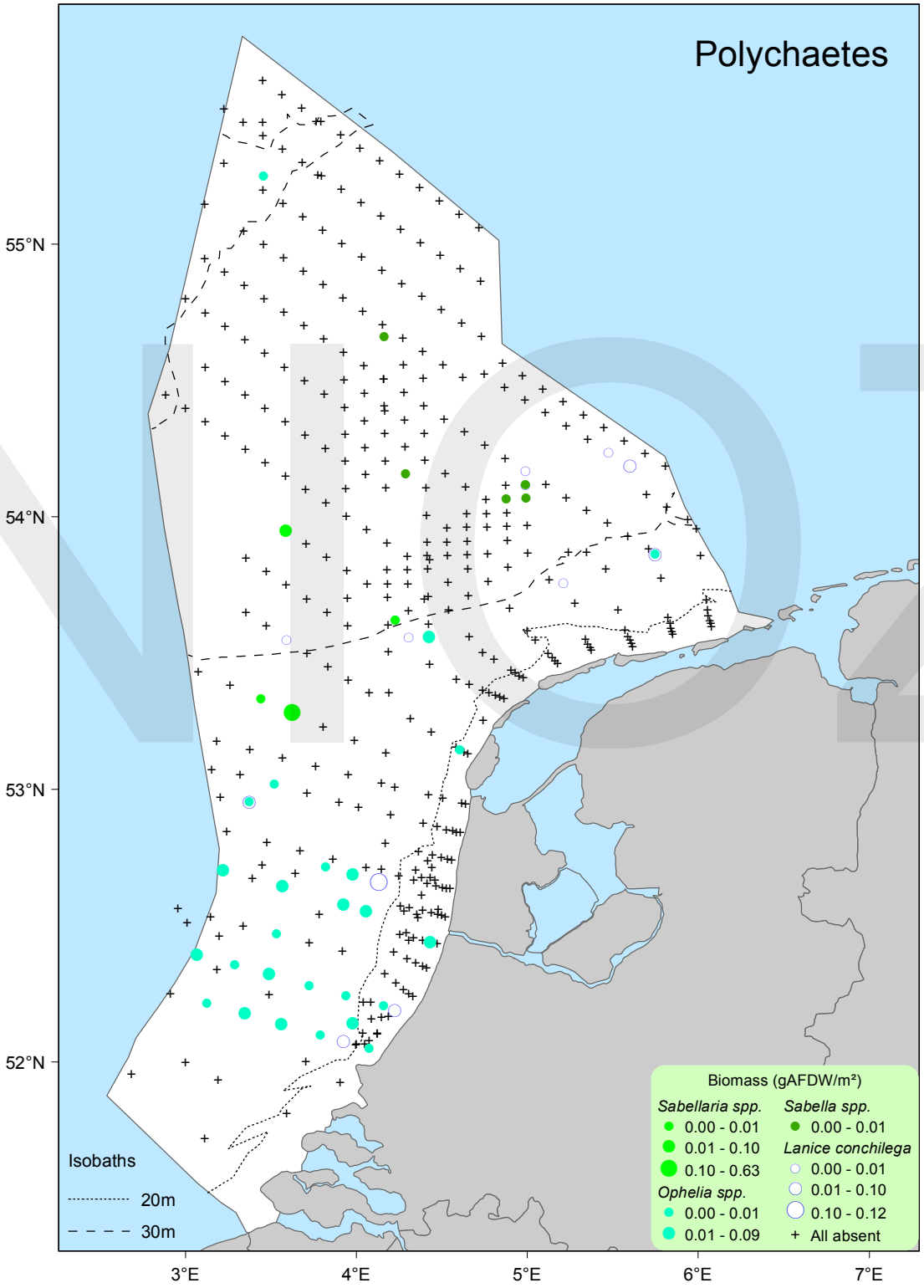

Owenia fusiformis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 425.6
0.00 - 0.01
0.01 - 0.07
0.07 - 0.40
0.40 - 2.31
2.31 - 13.14
13.14 - 74.78
74.78 - 425.60

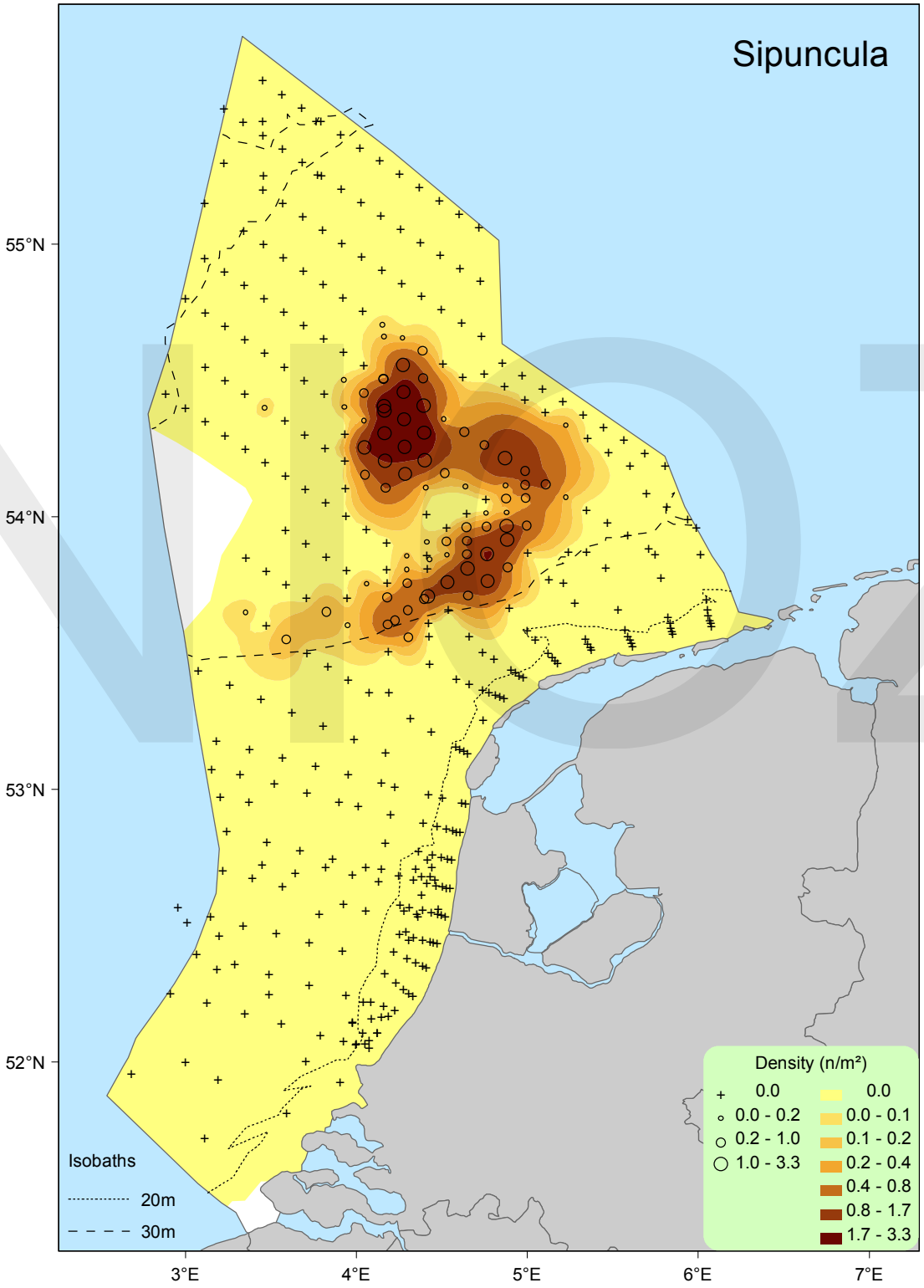

Owenia fusiformis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 22.08
0.000
0.000 - 0.001
0.001 - 0.010
0.010 - 0.070
0.070 - 0.476
0.476 - 3.241
3.241 - 22.080

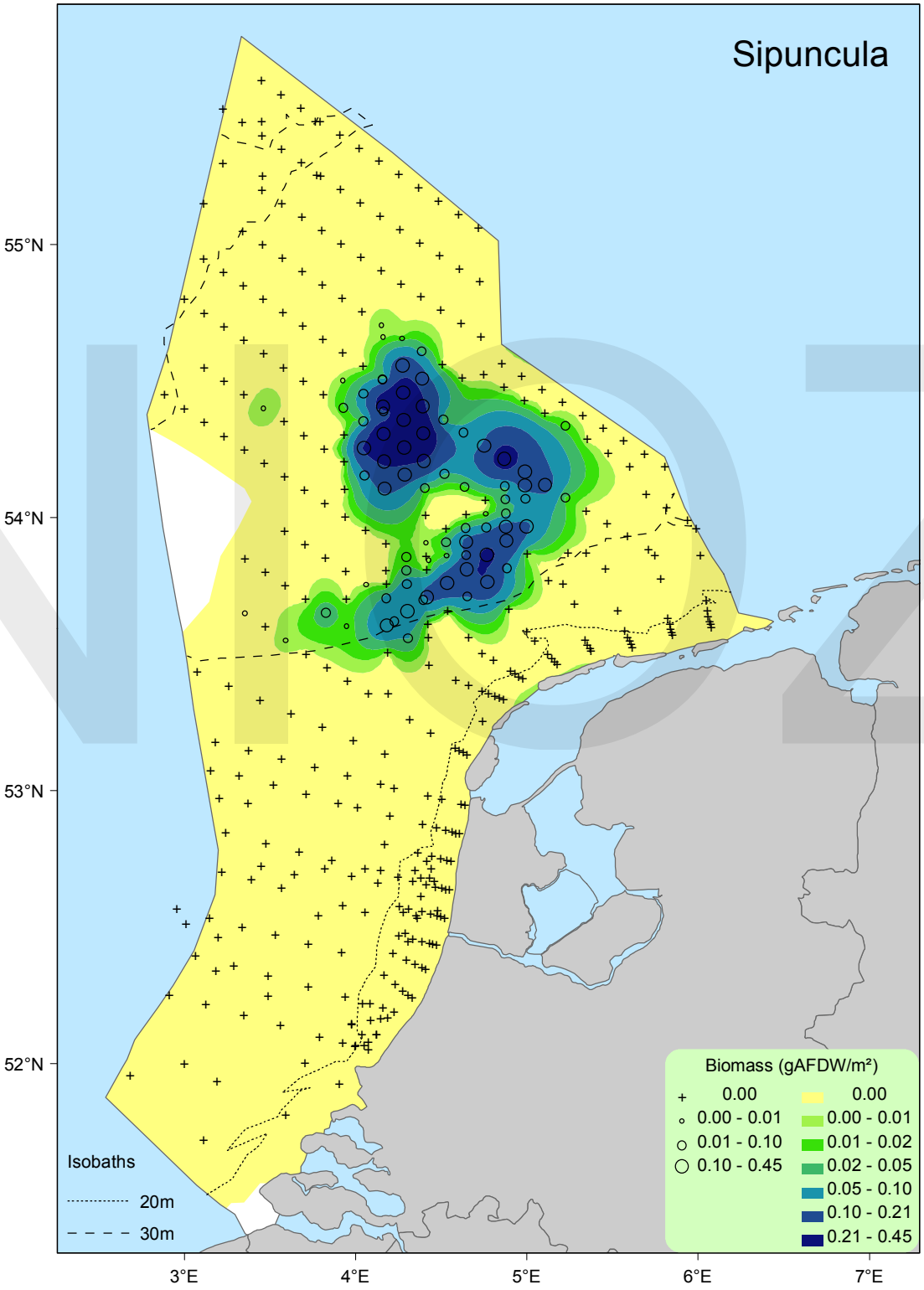

Pectinaria spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
P. auricoma
0.0 - 0.2
0.2 - 0.4
+ All absent
P. belgica / P. koreni
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 24.3

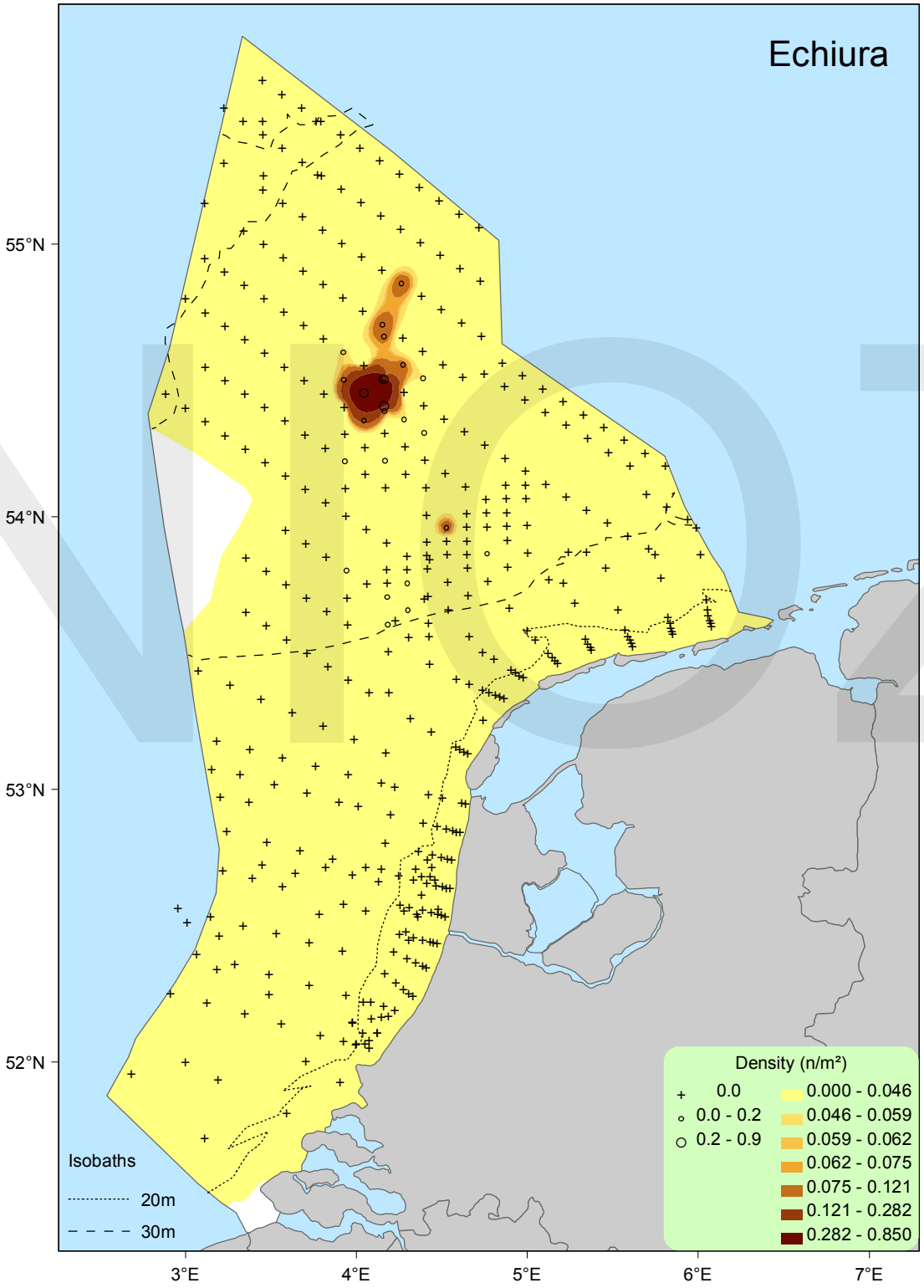

Pectinaria spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
P. auricoma
0.0 - 0.01
+ All absent
P. belgica / P. koreni
0.00 - 0.01
0.02 - 0.10
0.10 - 0.14

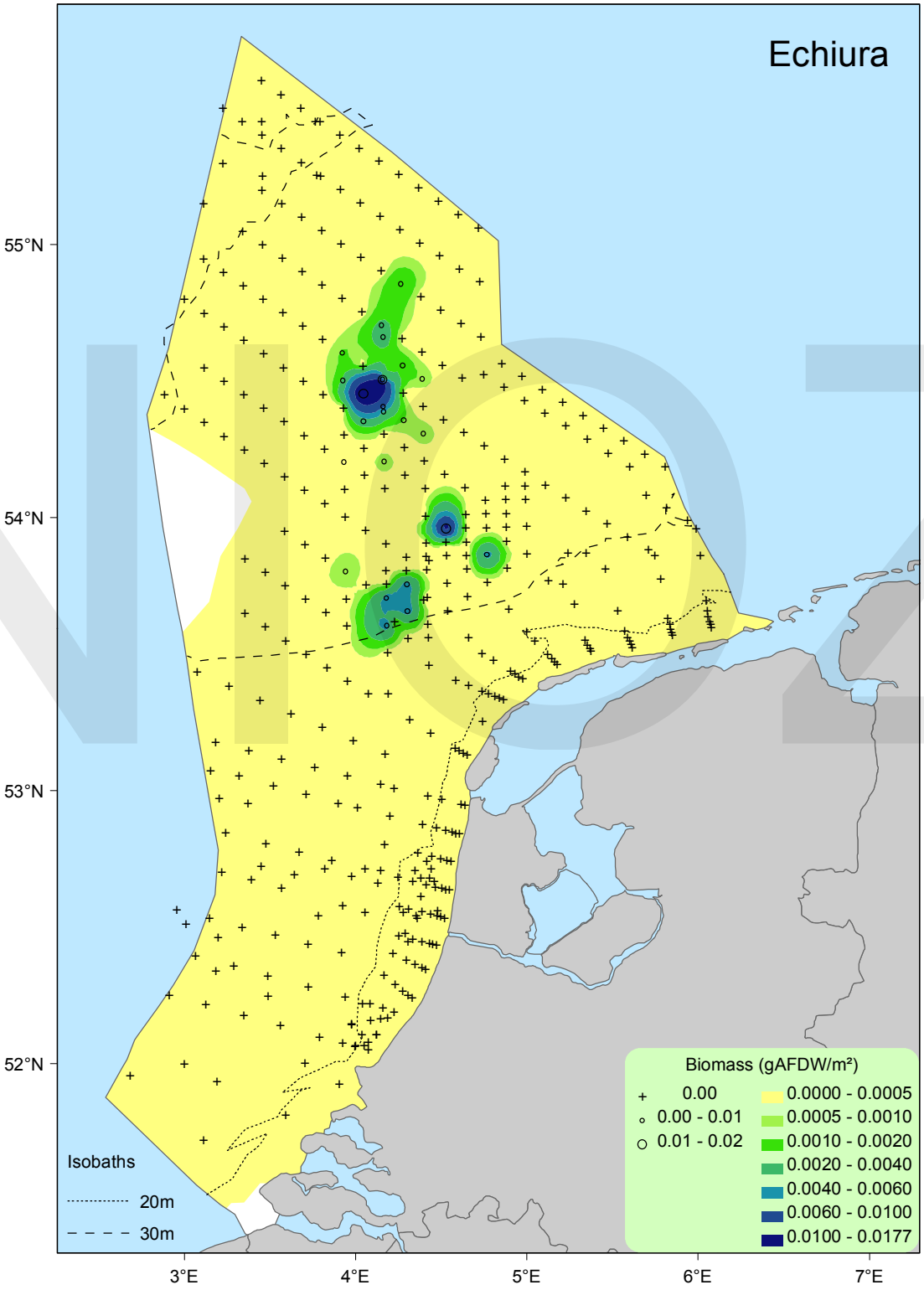

Polychaetes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Lanice conchilega
0.0 - 0.2
0.2 - 1.0
1.0 - 2.5
Ophelia spp.
0.0 - 0.2
0.2 - 1.0
1.0 - 1.5
Sabella spp.
0.0 - 0.1
Sabellaria spp.
0.0 - 0.2
All absent

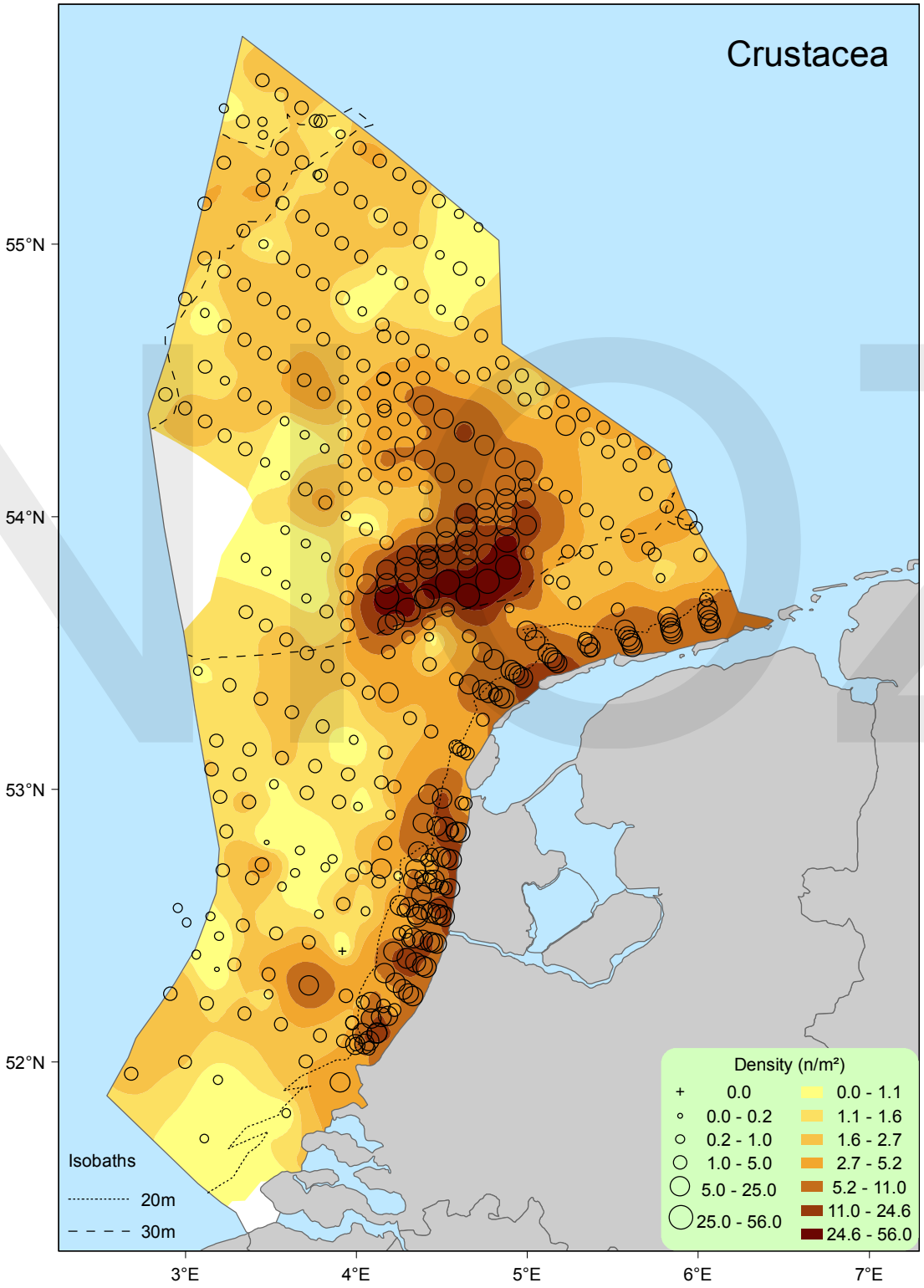

Polychaetes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Sabellaria spp.
0.00 - 0.01
0.01 - 0.10
0.10 - 0.63
Ophelia spp.
0.00 - 0.01
0.01 - 0.09
Sabella spp.
0.00 - 0.01
Lanice conchilega
0.00 - 0.01
0.01 - 0.10
0.10 - 0.12
+ All absent

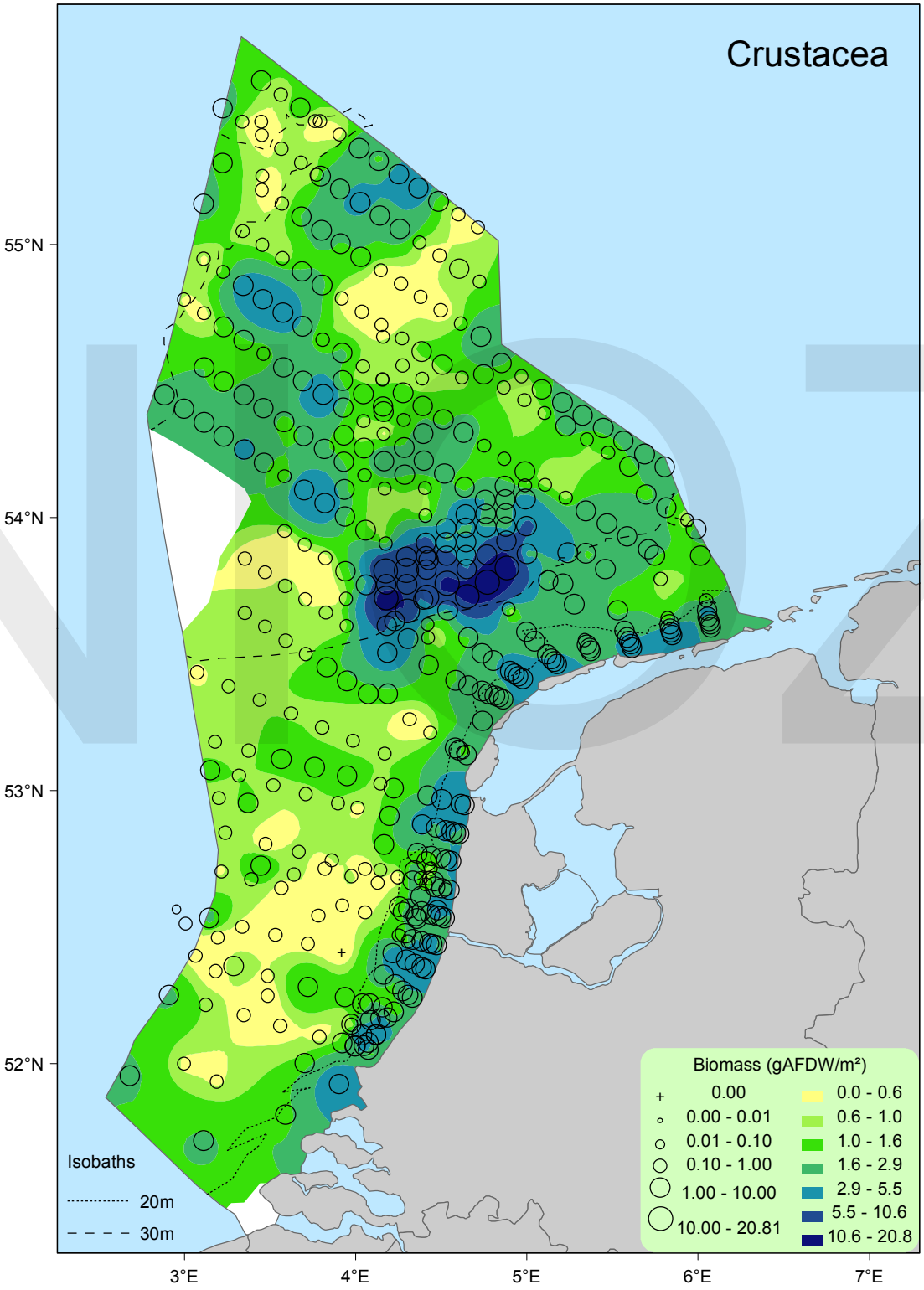

Sipuncula
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 3.3
0.0
0.0 - 0.1
0.1 - 0.2
0.2 - 0.4
0.4 - 0.8
0.8 - 1.7
1.7 - 3.3

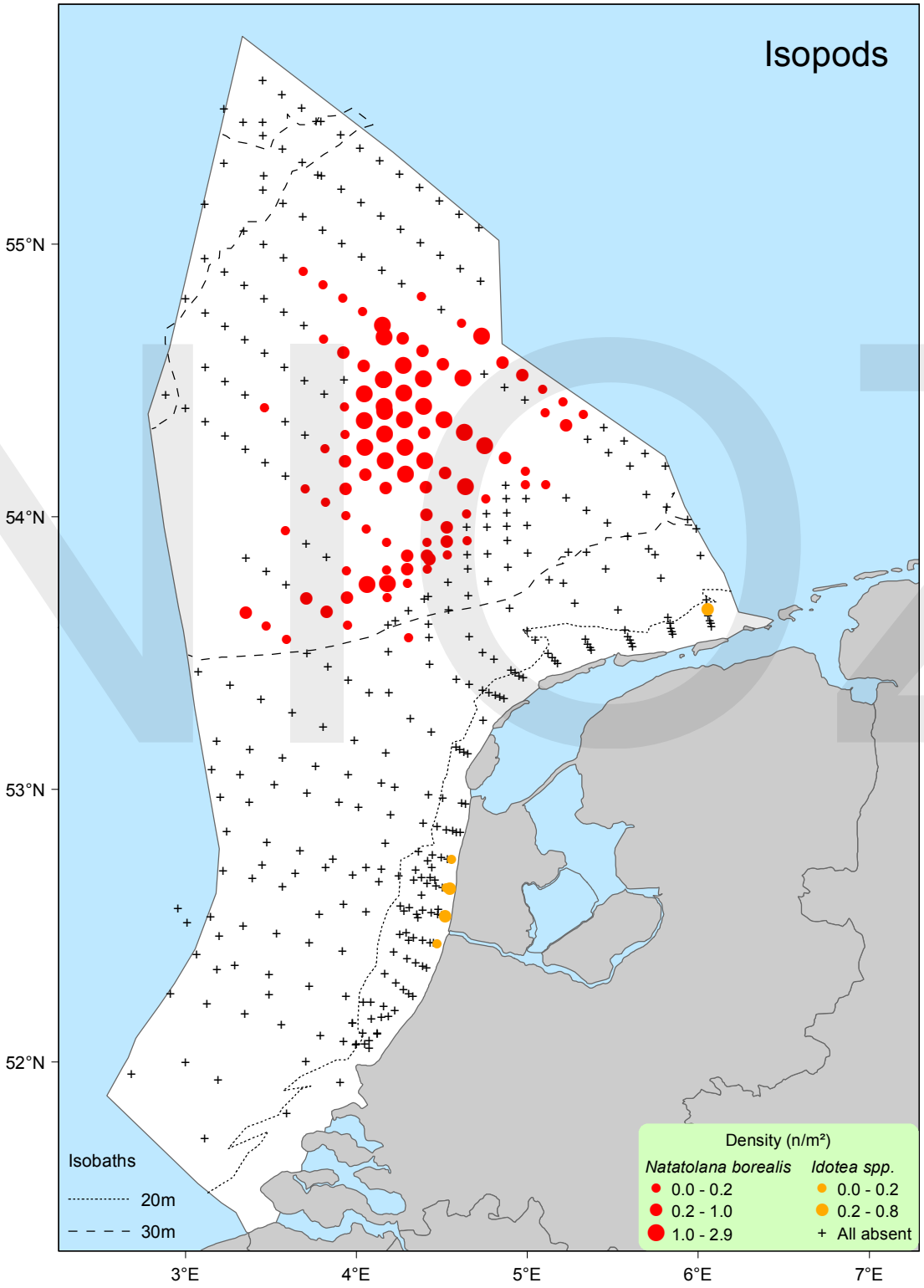

Sipuncula
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.45
0.00
0.00 - 0.01
0.01 - 0.02
0.02 - 0.05
0.05 - 0.10
0.10 - 0.21
0.21 - 0.45

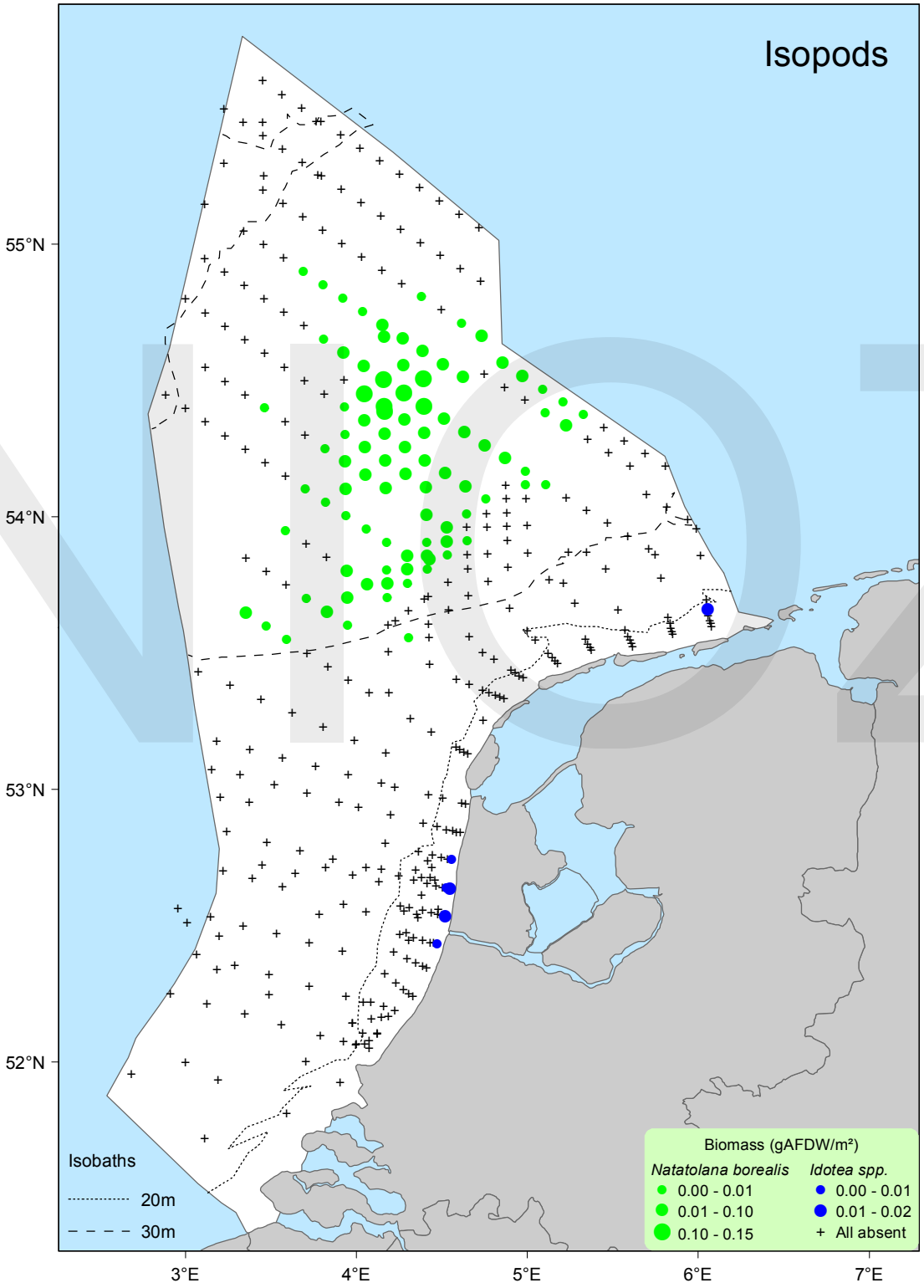

Echiura
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.9
0.000 - 0.046
0.046 - 0.059
0.059 - 0.062
0.062 - 0.075
0.075 - 0.121
0.121 - 0.282
0.282 - 0.850

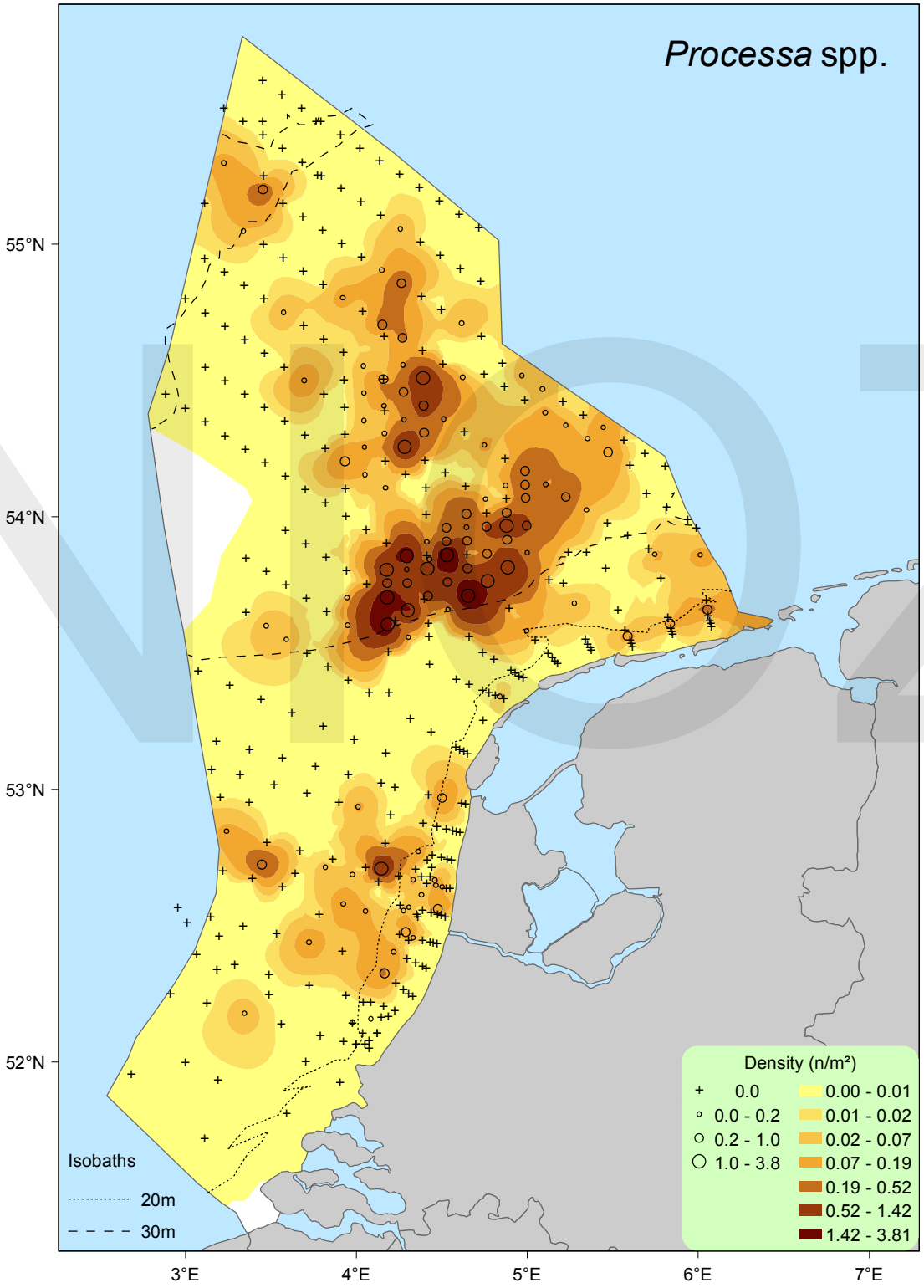

Echiura
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.02
0.0000 - 0.0005
0.0005 - 0.0010
0.0010 - 0.0020
0.0020 - 0.0040
0.0040 - 0.0060
0.0060 - 0.0100
0.0100 - 0.0177

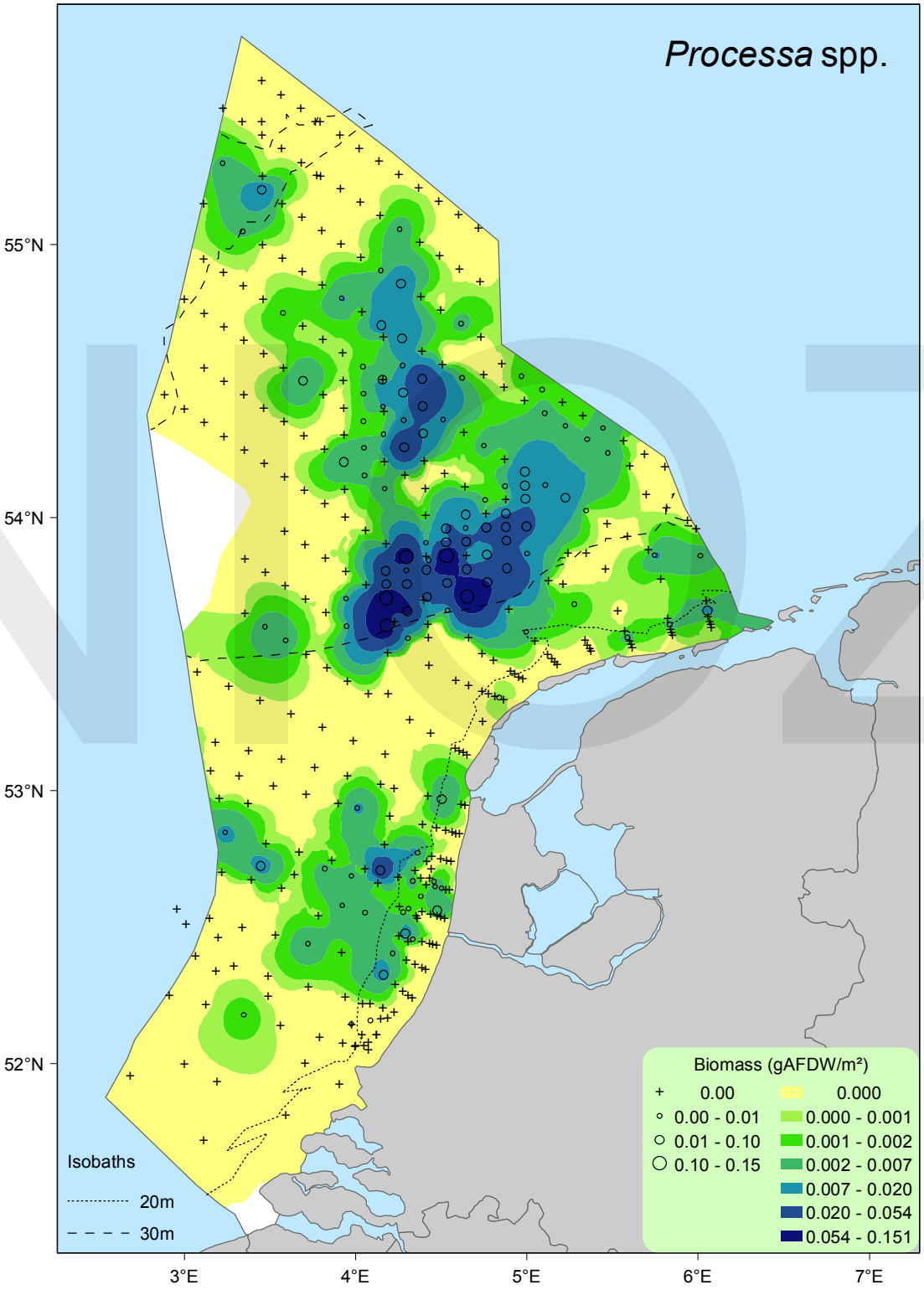

Crustacea
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 56.0
0.0 - 1.1
1.1 - 1.6
1.6 - 2.7
2.7 - 5.2
5.2 - 11.0
11.0 - 24.6
24.6 - 56.0

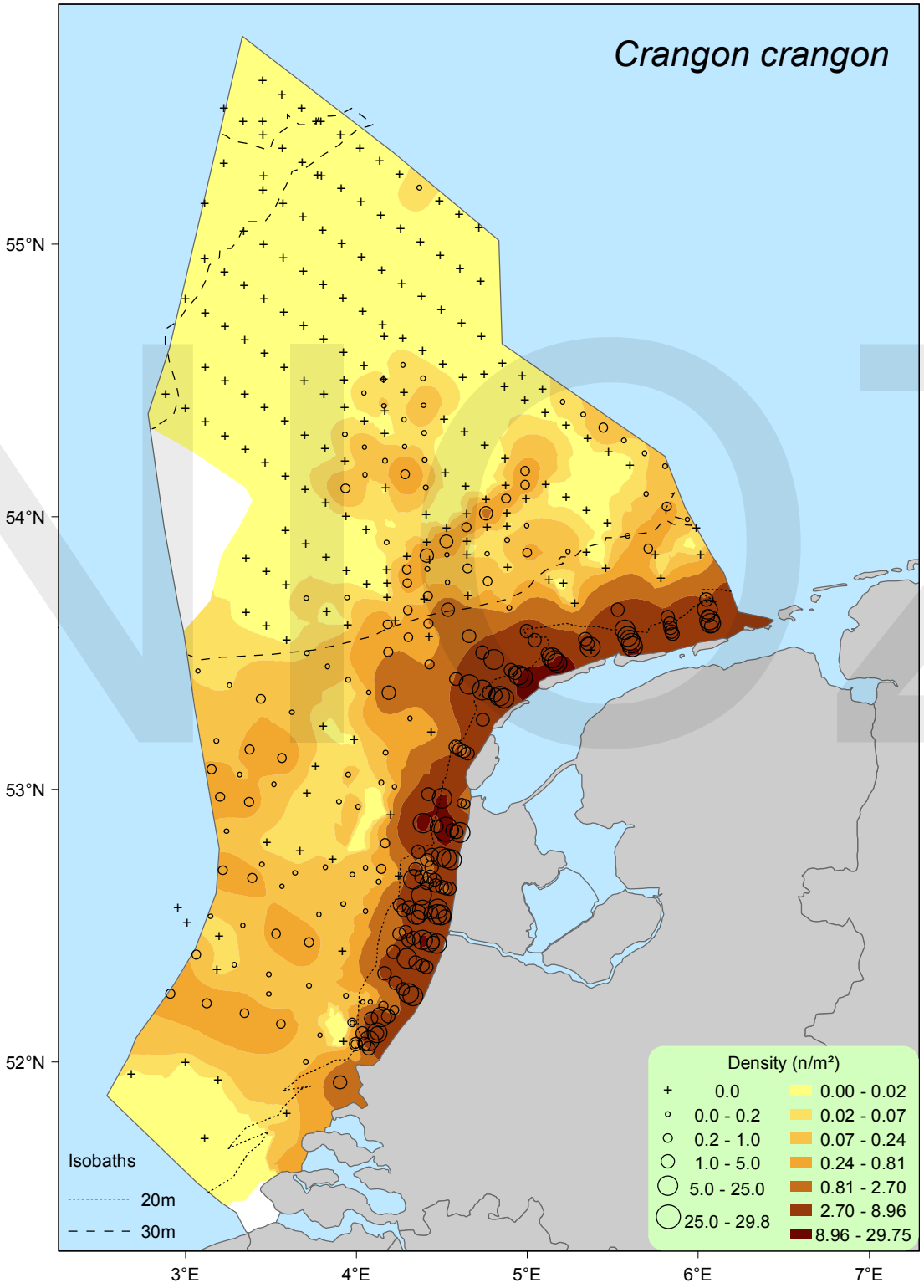

Crustacea
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 20.81
0.0 - 0.6
0.6 - 1.0
1.0 - 1.6
1.6 - 2.9
2.9 - 5.5
5.5 - 10.6
10.6 - 20.8

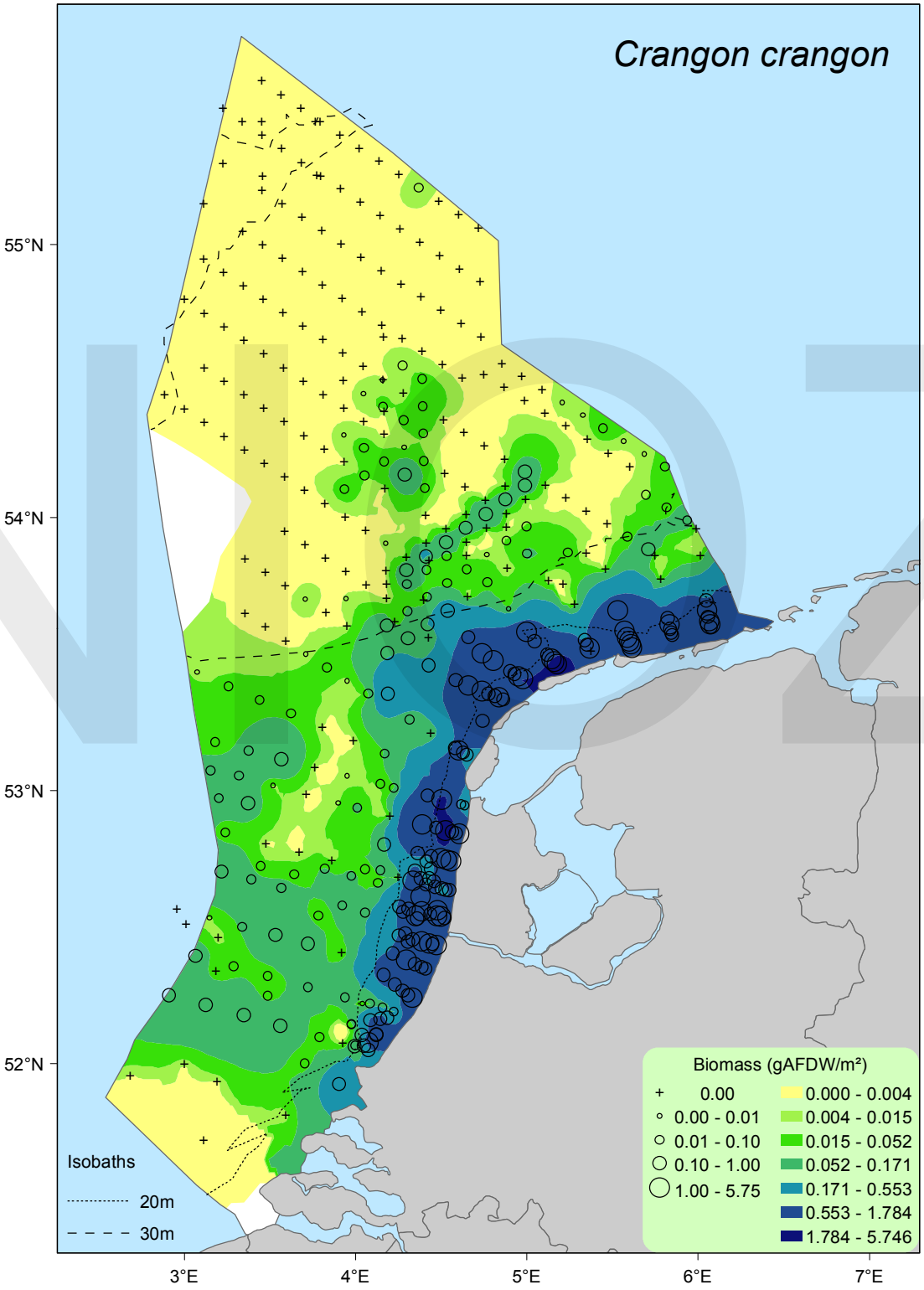

Isopods
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Natatolana borealis
0.0 - 0.2
0.2 - 1.0
1.0 - 2.9
Idotea spp.
0.0 - 0.2
0.2 - 0.8
All absent

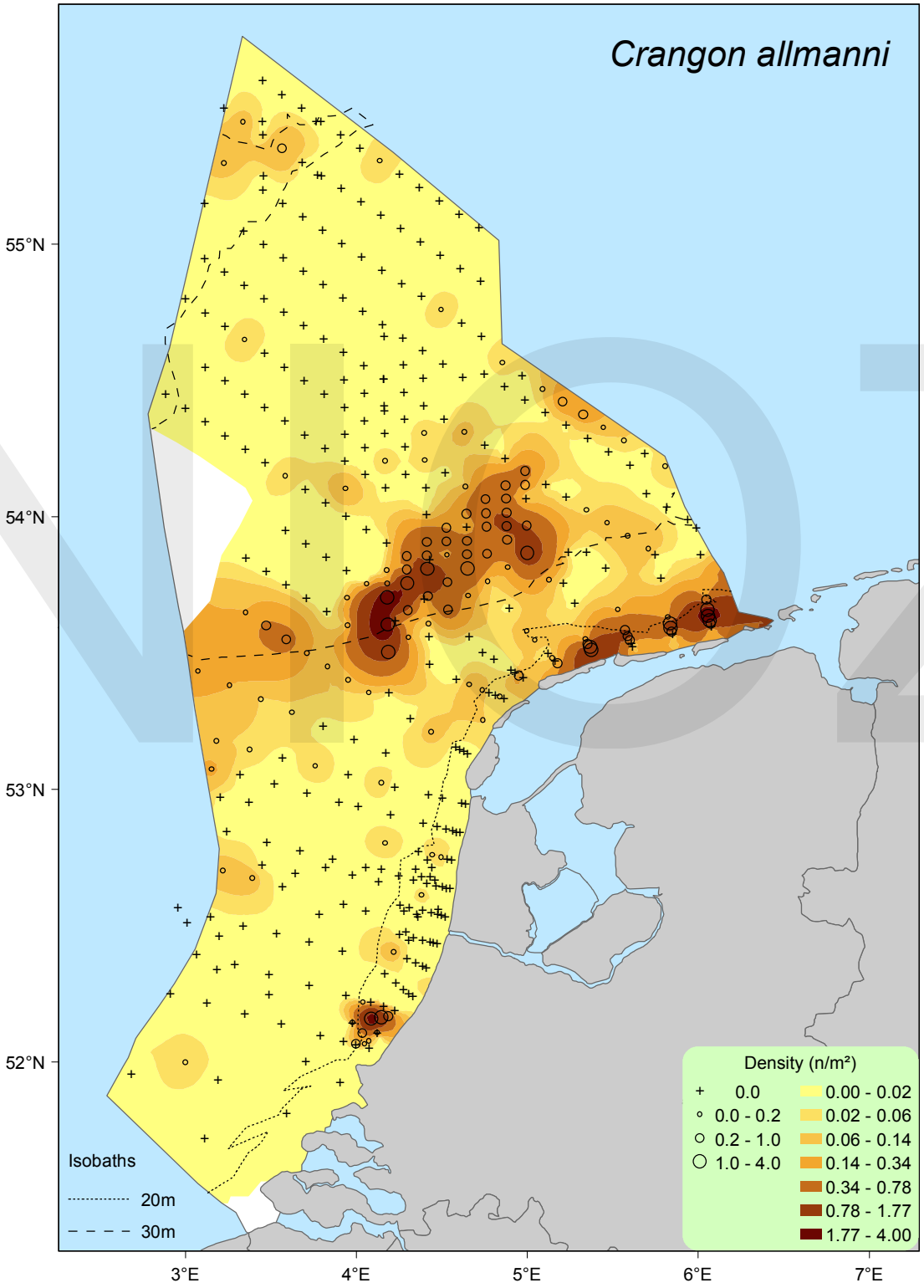

Isopods
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Natatolana borealis
0.00 - 0.01
0.01 - 0.10
0.10 - 0.15
Idotea spp.
0.00 - 0.01
0.01 - 0.02
+ All absent

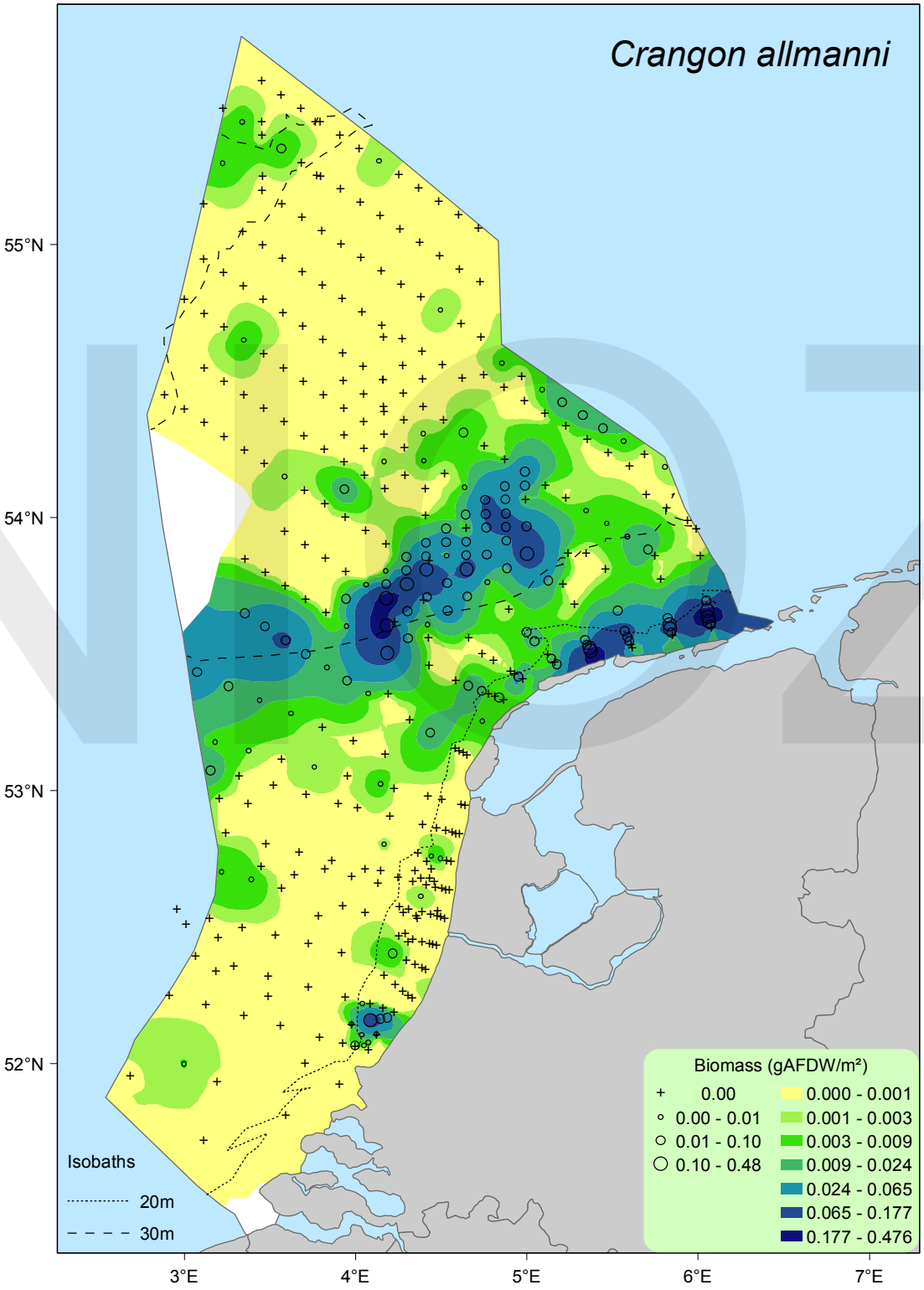

Processa spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 3.8
0.00 - 0.01
0.01 - 0.02
0.02 - 0.07
0.07 - 0.19
0.19 - 0.52
0.52 - 1.42
1.42 - 3.81

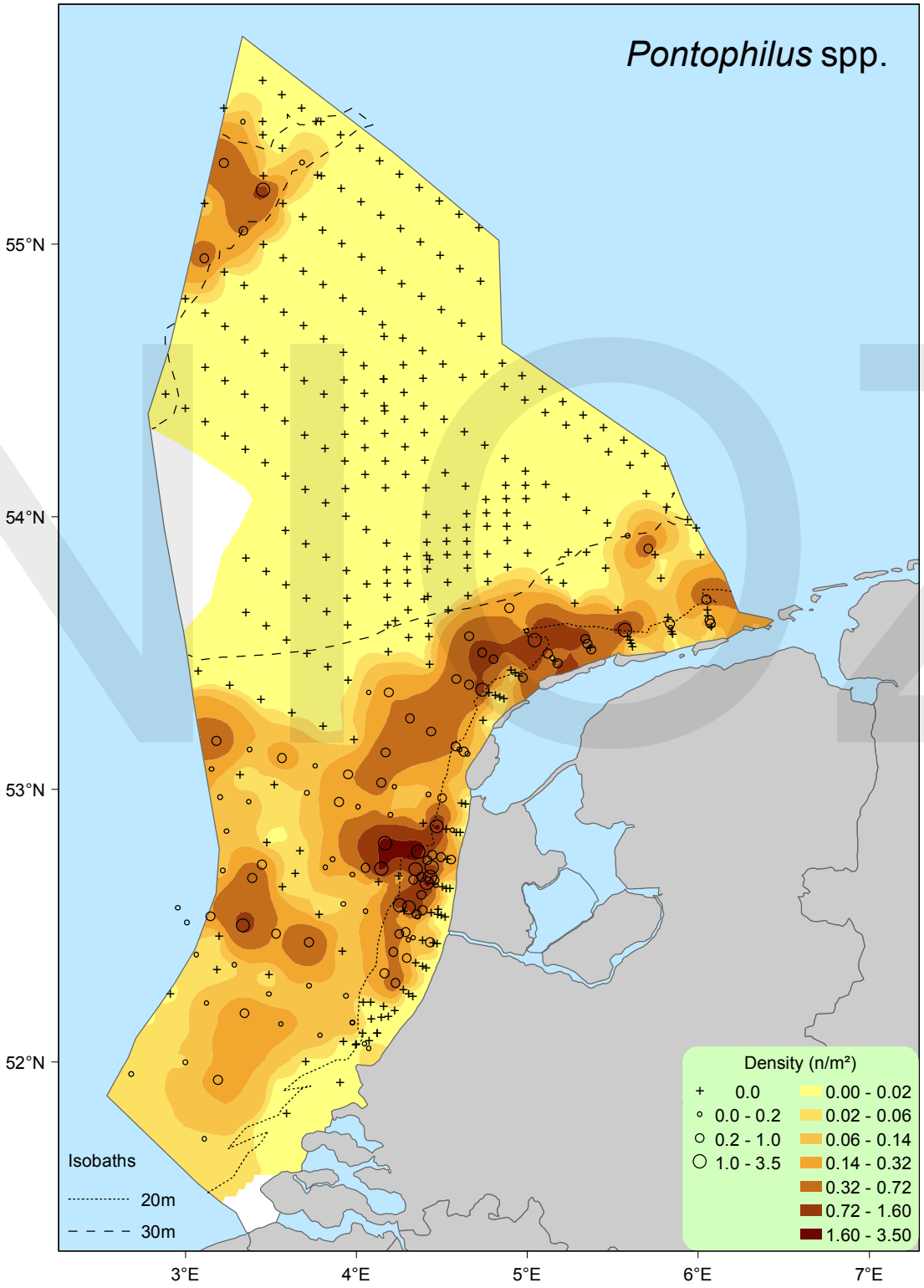

Processa spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.15
0.000
0.000 - 0.001
0.001 - 0.002
0.002 - 0.007
0.007 - 0.020
0.020 - 0.054
0.054 - 0.151

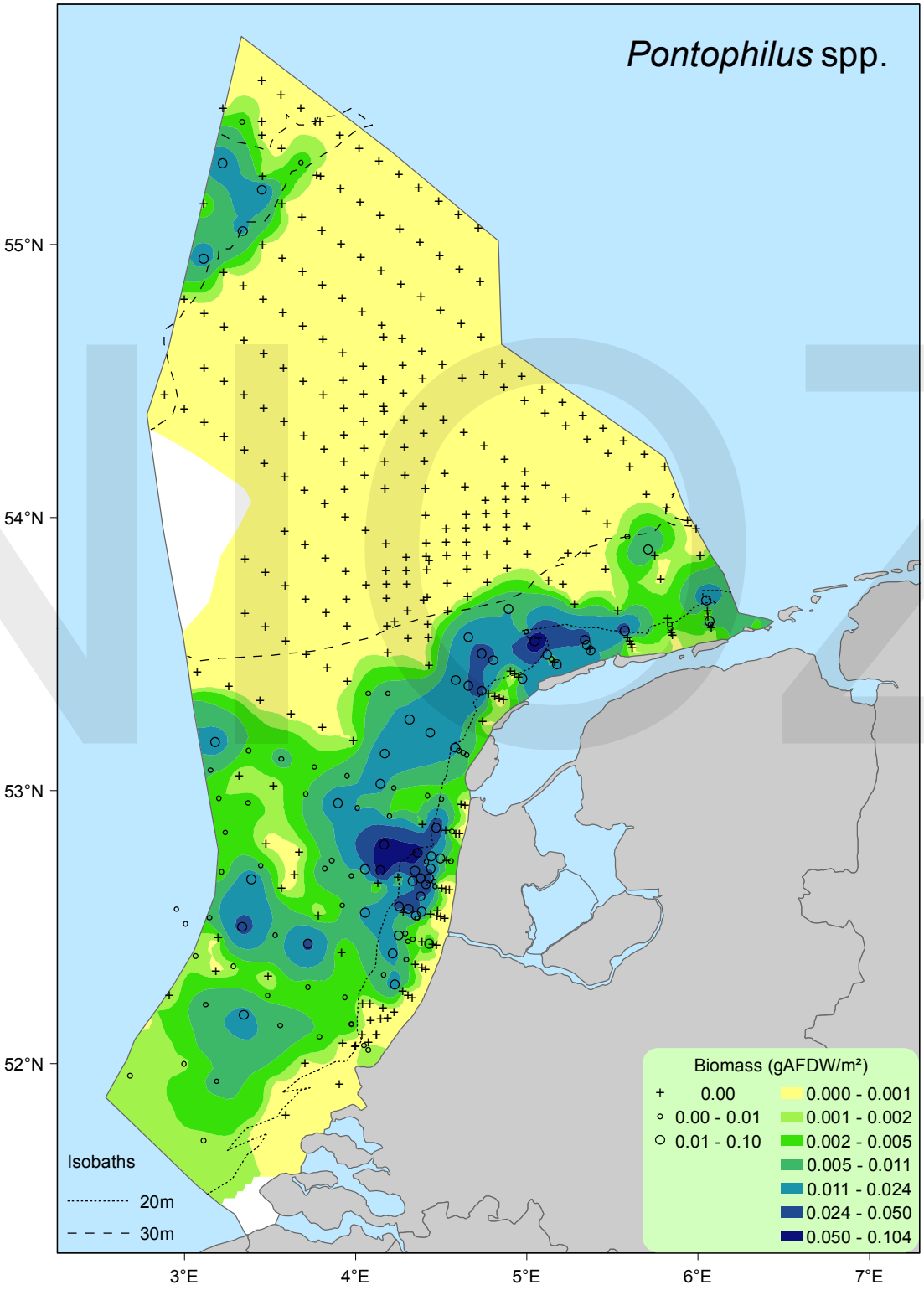

Crangon crangon
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 29.8
0.00 - 0.02
0.02 - 0.07
0.07 - 0.24
0.24 - 0.81
0.81 - 2.70
2.70 - 8.96
8.96 - 29.75

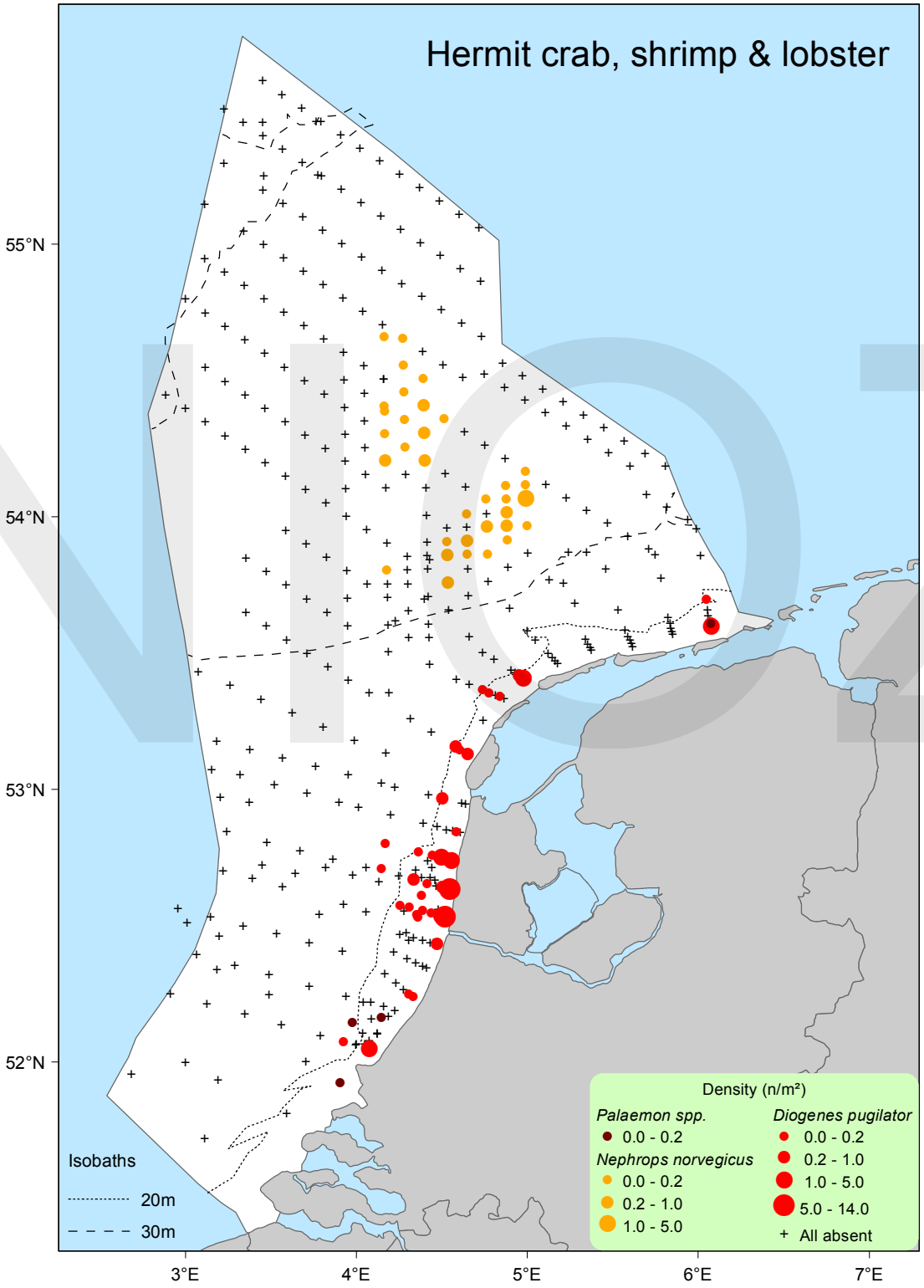

Crangon crangon
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 5.75
0.000 - 0.004
0.004 - 0.015
0.015 - 0.052
0.052 - 0.171
0.171 - 0.553
0.553 - 1.784
1.784 - 5.746

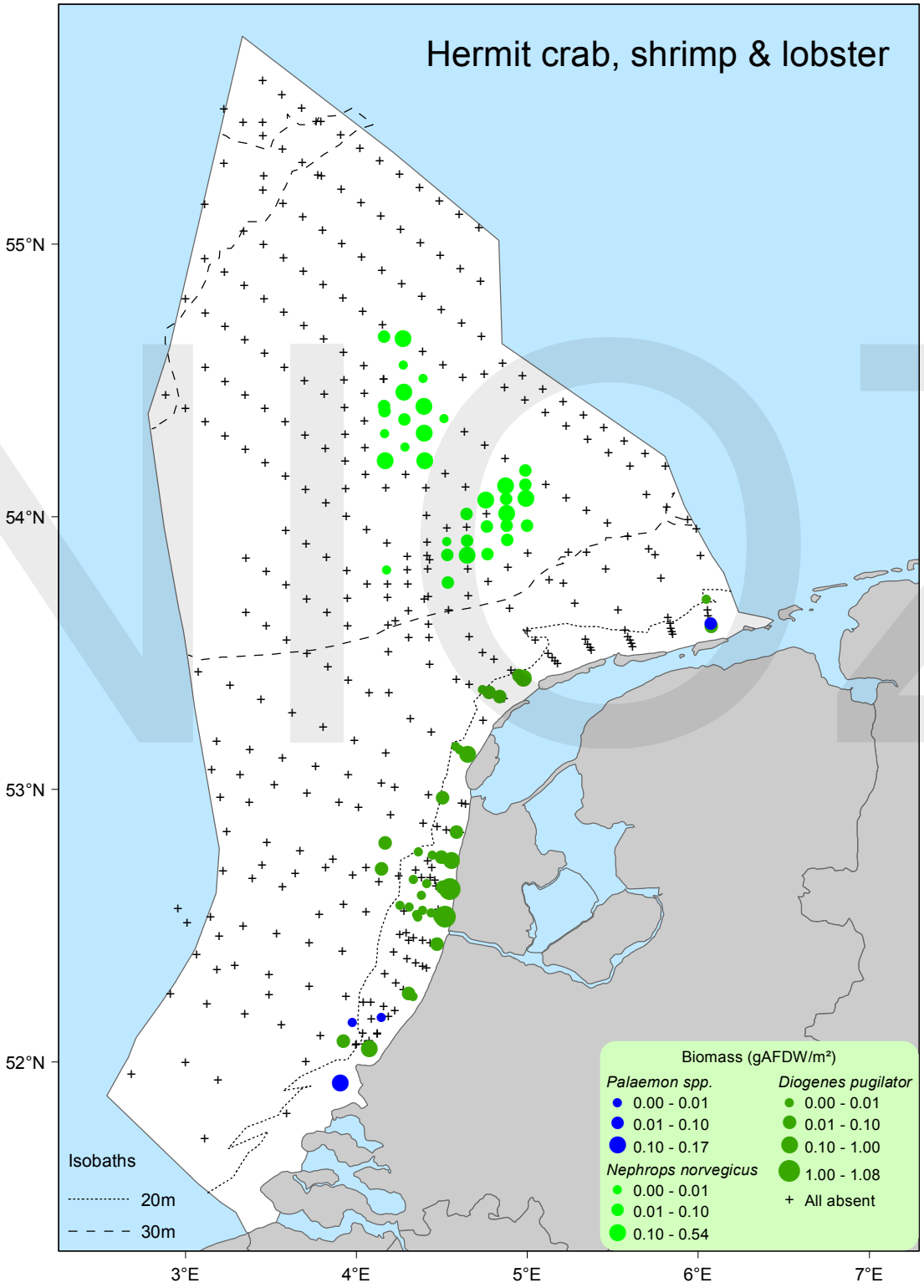

Crangon allmanni
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 4.0
0.00 - 0.02
0.02 - 0.06
0.06 - 0.14
0.14 - 0.34
0.34 - 0.78
0.78 - 1.77
1.77 - 4.00

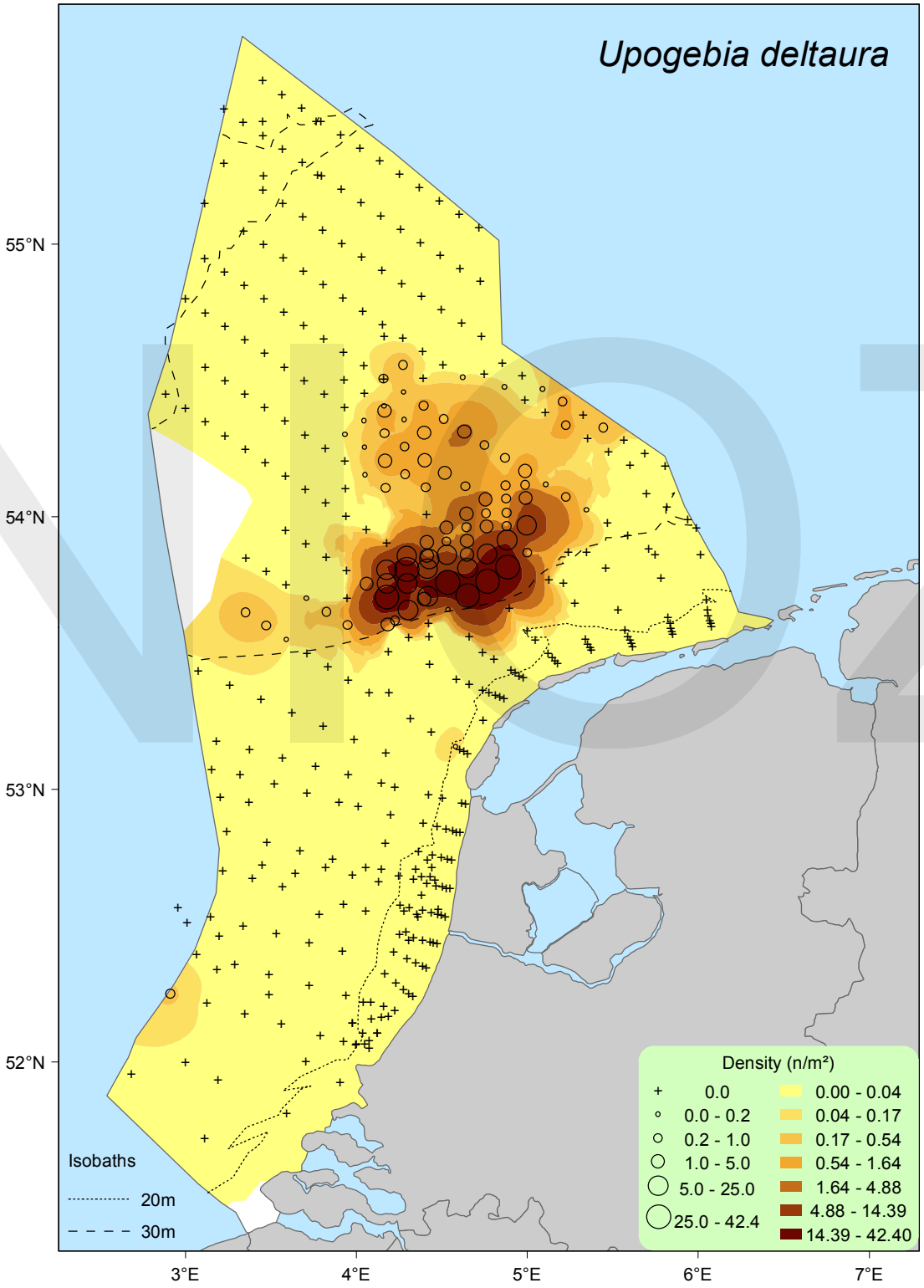

Crangon allmanni
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.48
0.000 - 0.001
0.001 - 0.003
0.003 - 0.009
0.009 - 0.024
0.024 - 0.065
0.065 - 0.177
0.177 - 0.476

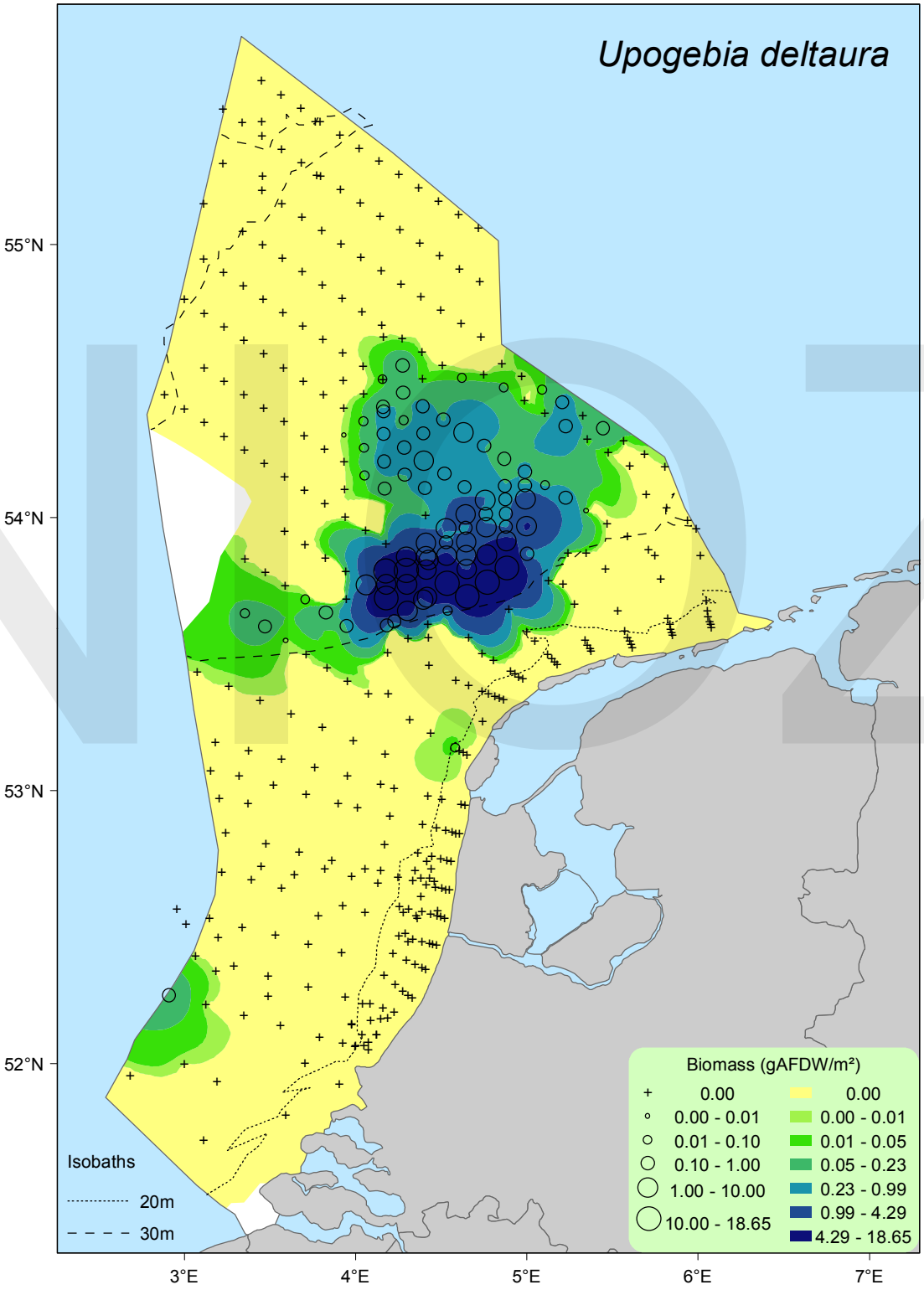

Pontophilus spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 3.5
0.00 - 0.02
0.02 - 0.06
0.06 - 0.14
0.14 - 0.32
0.32 - 0.72
0.72 - 1.60
1.60 - 3.50

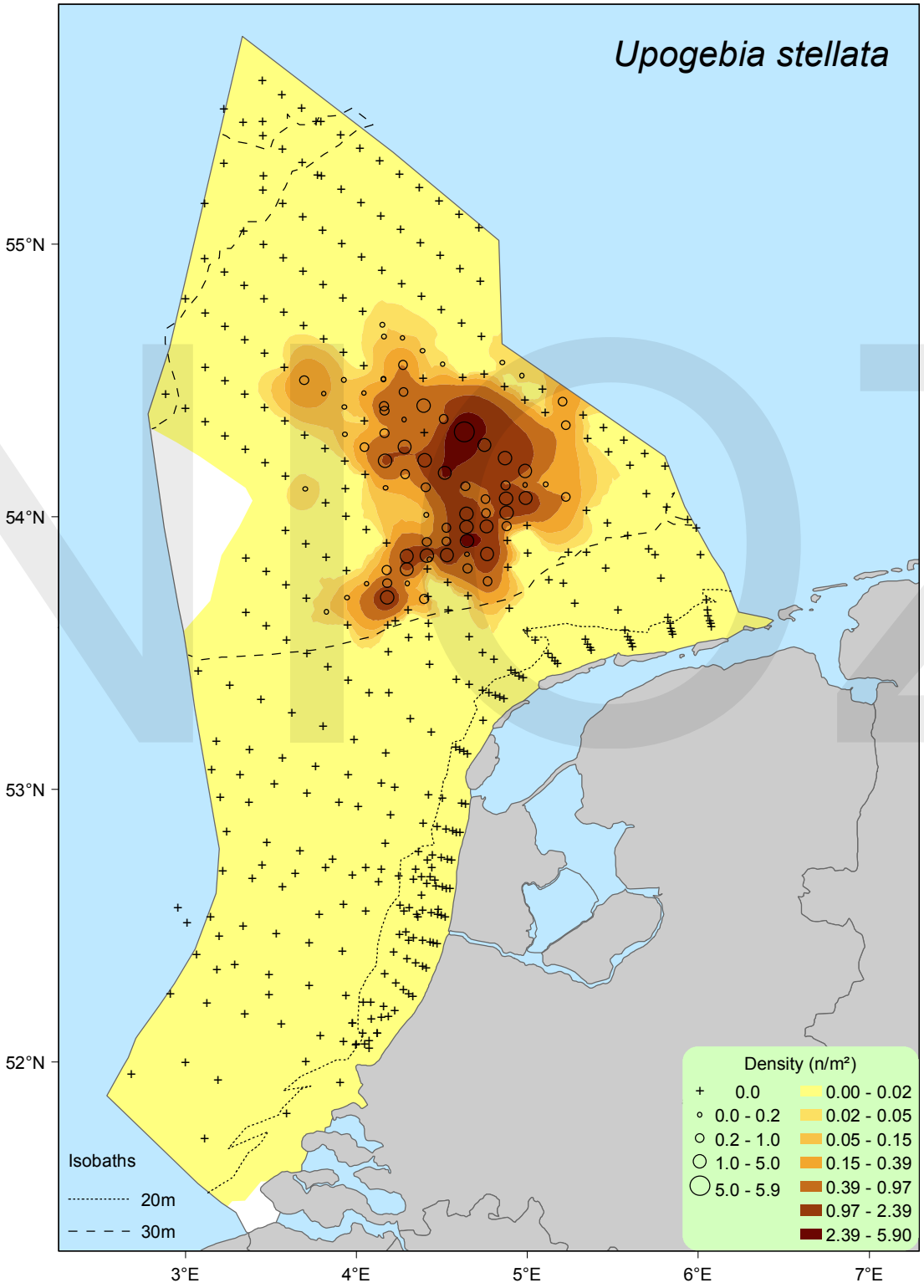

Pontophilus spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.000 - 0.001
0.001 - 0.002
0.002 - 0.005
0.005 - 0.011
0.011 - 0.024
0.024 - 0.050
0.050 - 0.104

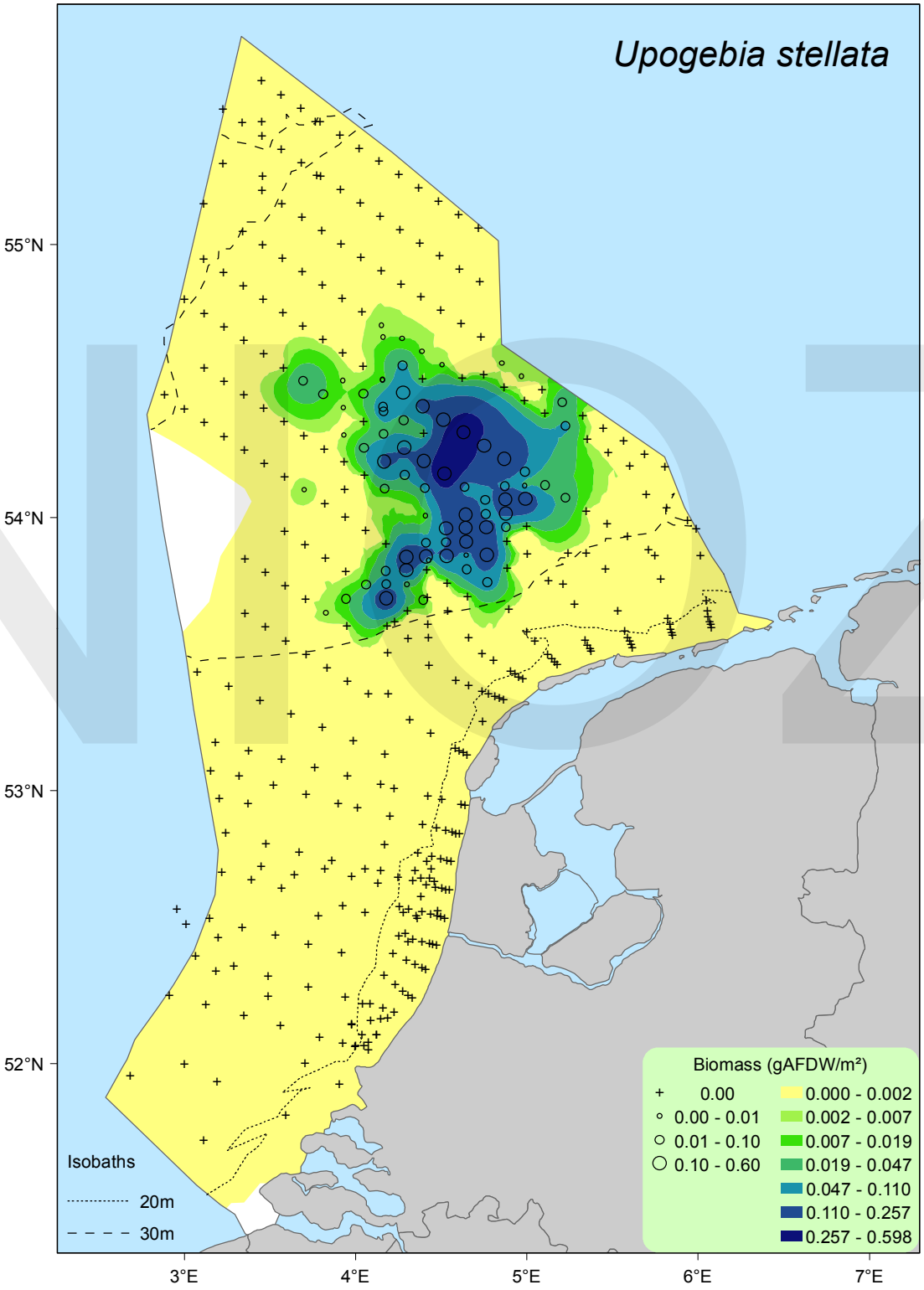

Hermit crab, shrimp & lobster
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Palaemon spp.
0.0 - 0.2
Nephrops norvegicus
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
Diogenes pugilator
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 14.0
All absent

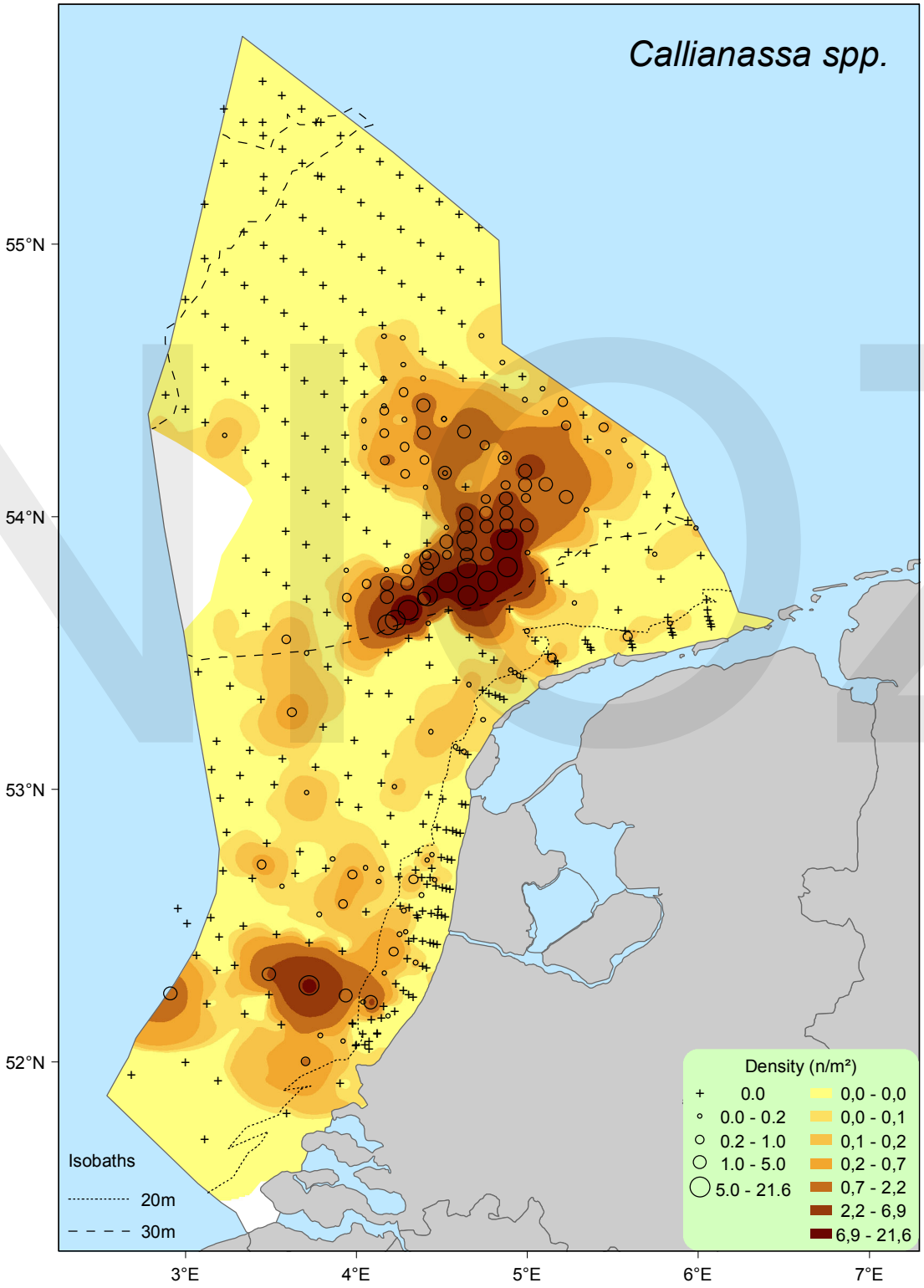

Hermit crab, shrimp & lobster
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Palaemon spp.
0.00 - 0.01
0.01 - 0.10
0.10 - 0.17
Nephrops norvegicus
0.00 - 0.01
0.01 - 0.10
0.10 - 0.54
Diogenes pugilator
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.08
+ All absent

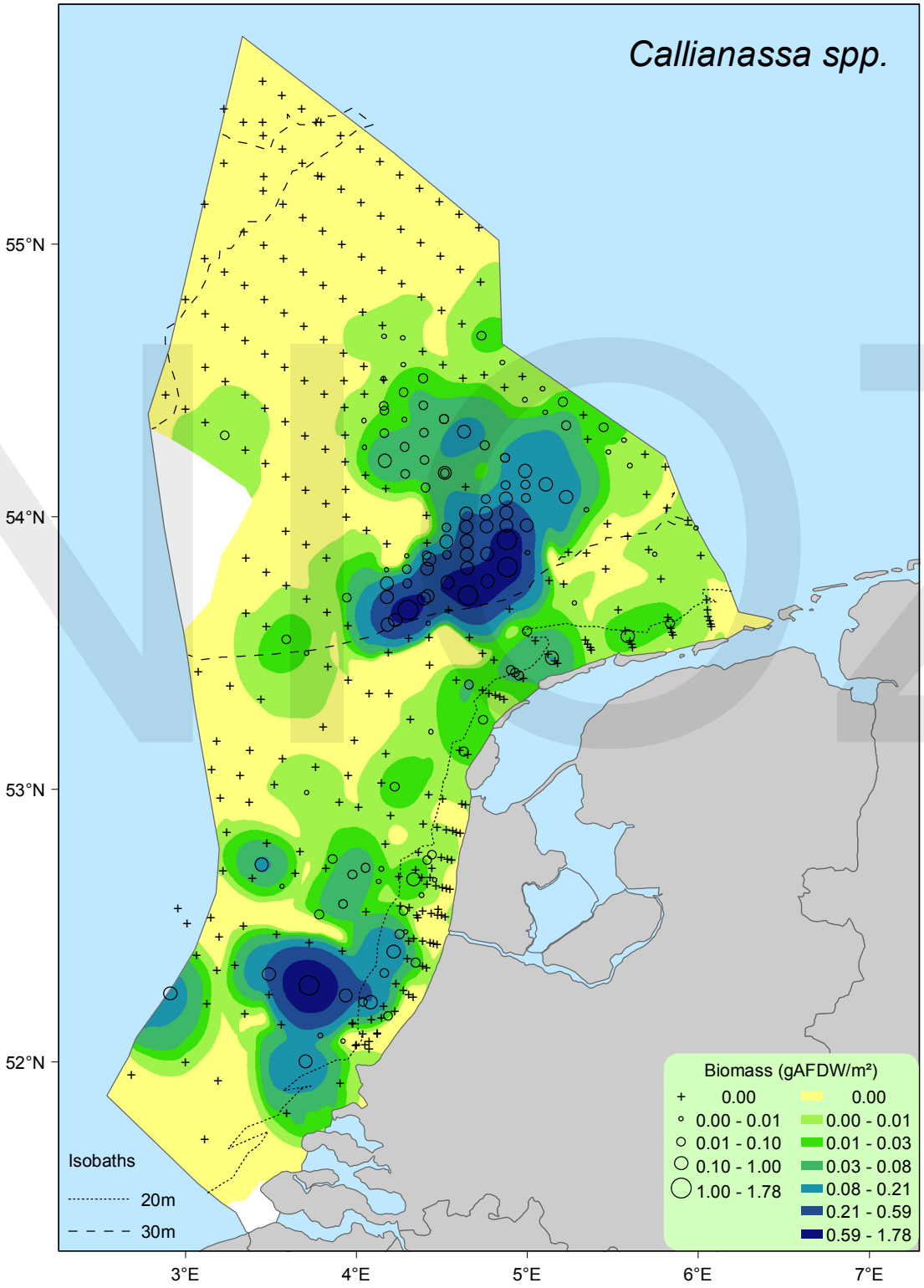

Upogebia deltaura
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 42.4
0.00 - 0.04
0.04 - 0.17
0.17 - 0.54
0.54 - 1.64
1.64 - 4.88
4.88 - 14.39
14.39 - 42.40

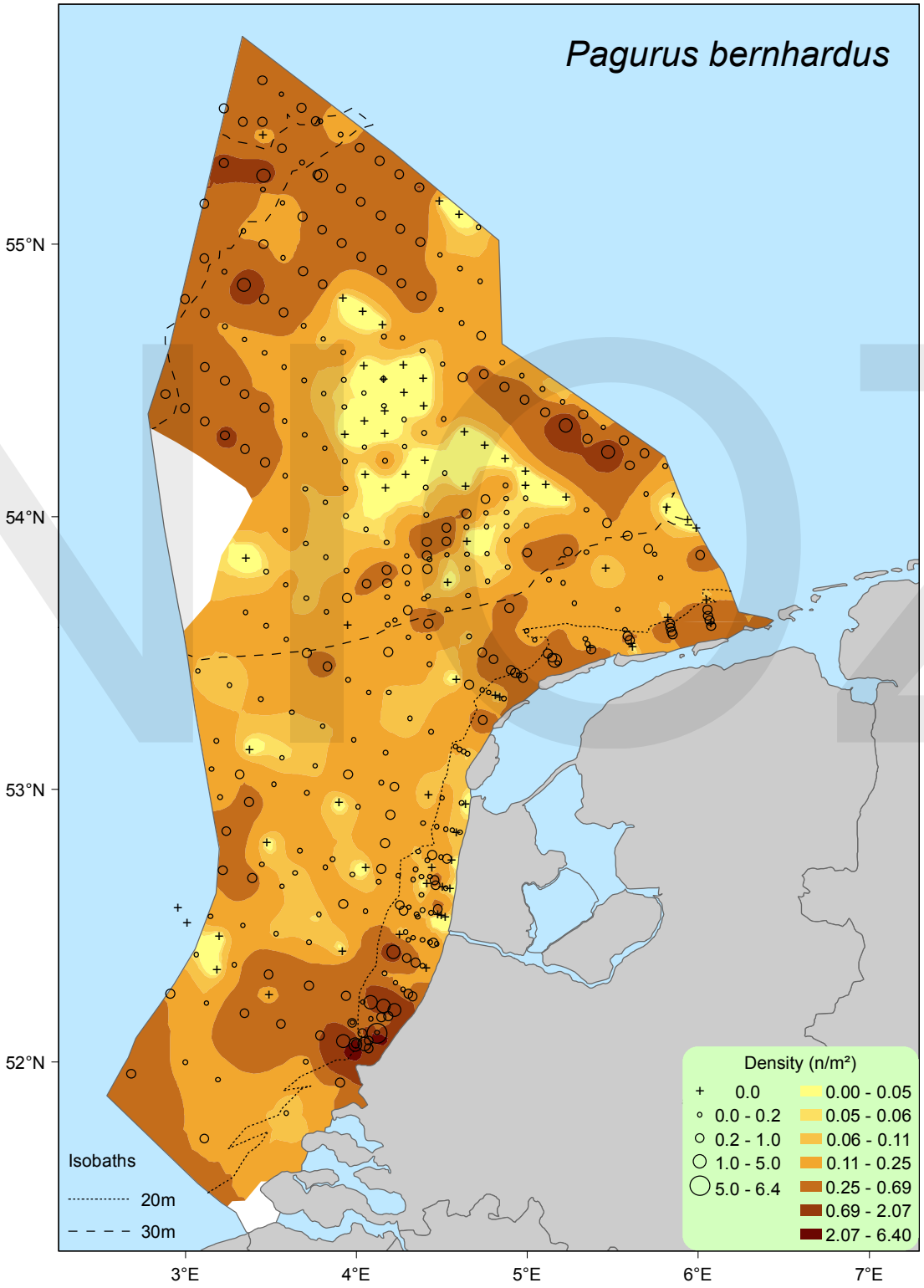

Upogebia deltaura
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 18.65
0.00
0.00 - 0.01
0.01 - 0.05
0.05 - 0.23
0.23 - 0.99
0.99 - 4.29
4.29 - 18.65

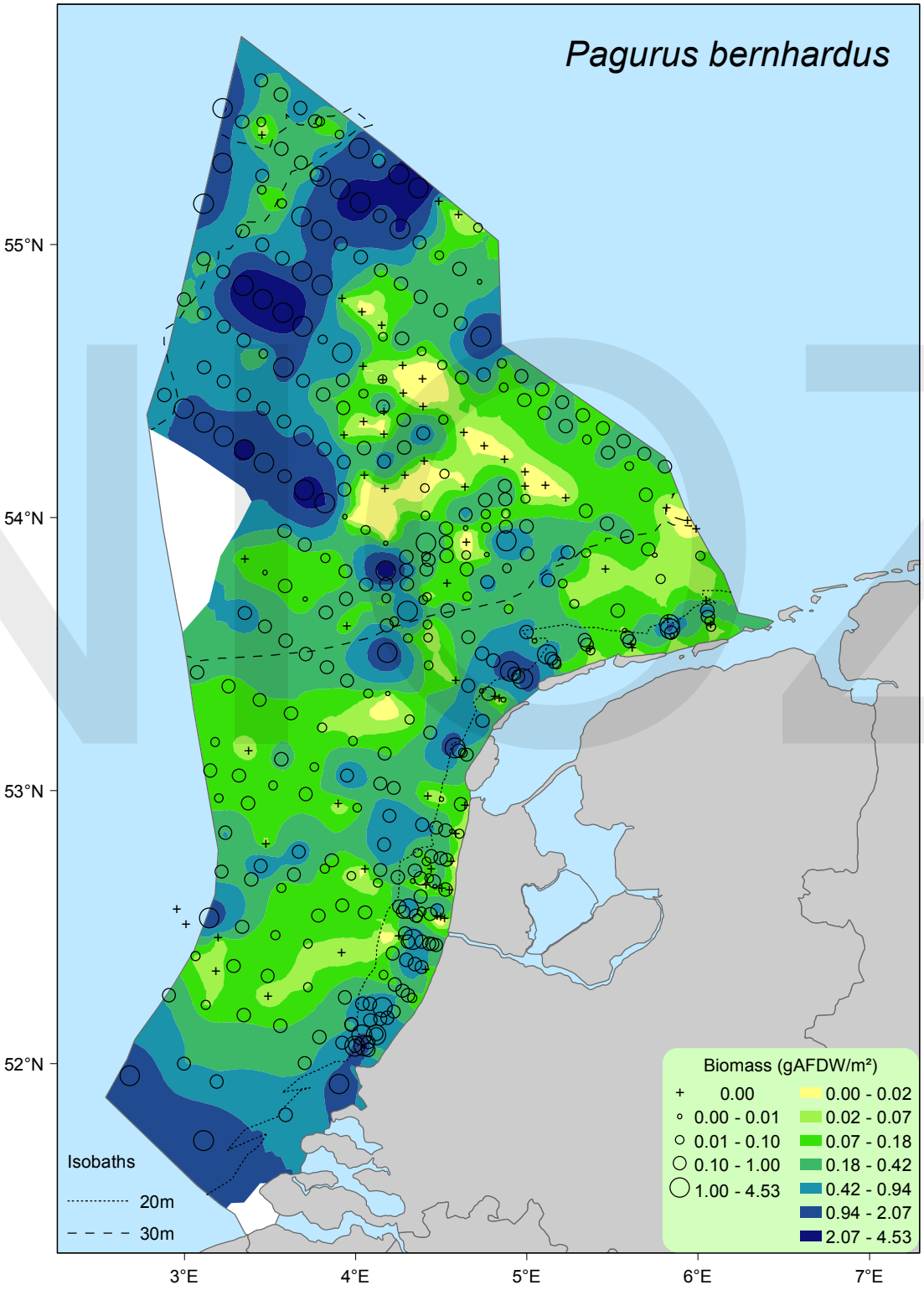

Upogebia stellata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 5.9
0.00 - 0.02
0.02 - 0.05
0.05 - 0.15
0.15 - 0.39
0.39 - 0.97
0.97 - 2.39
2.39 - 5.90

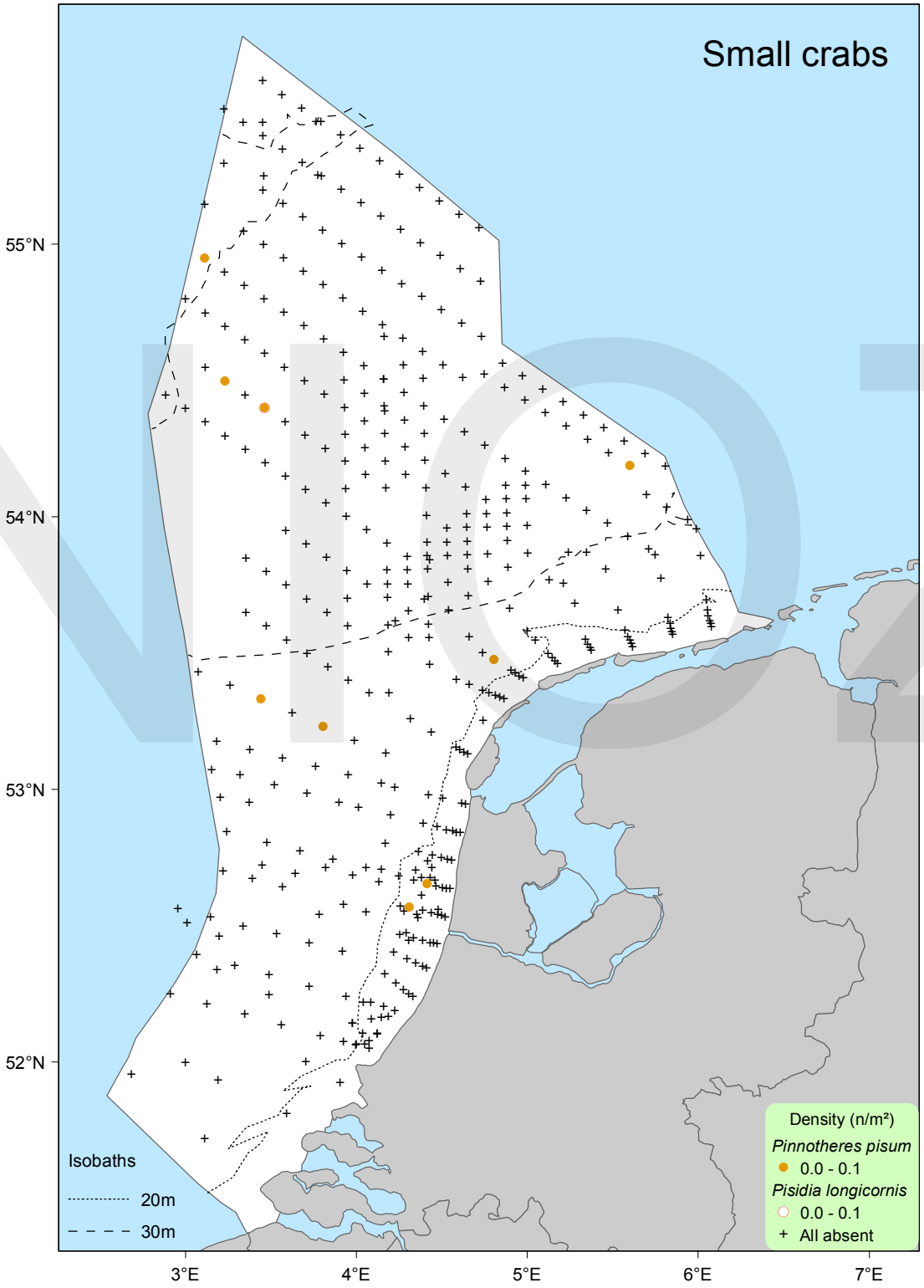

Upogebia stellata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.60
0.000 - 0.002
0.002 - 0.007
0.007 - 0.019
0.019 - 0.047
0.047 - 0.110
0.110 - 0.257
0.257 - 0.598

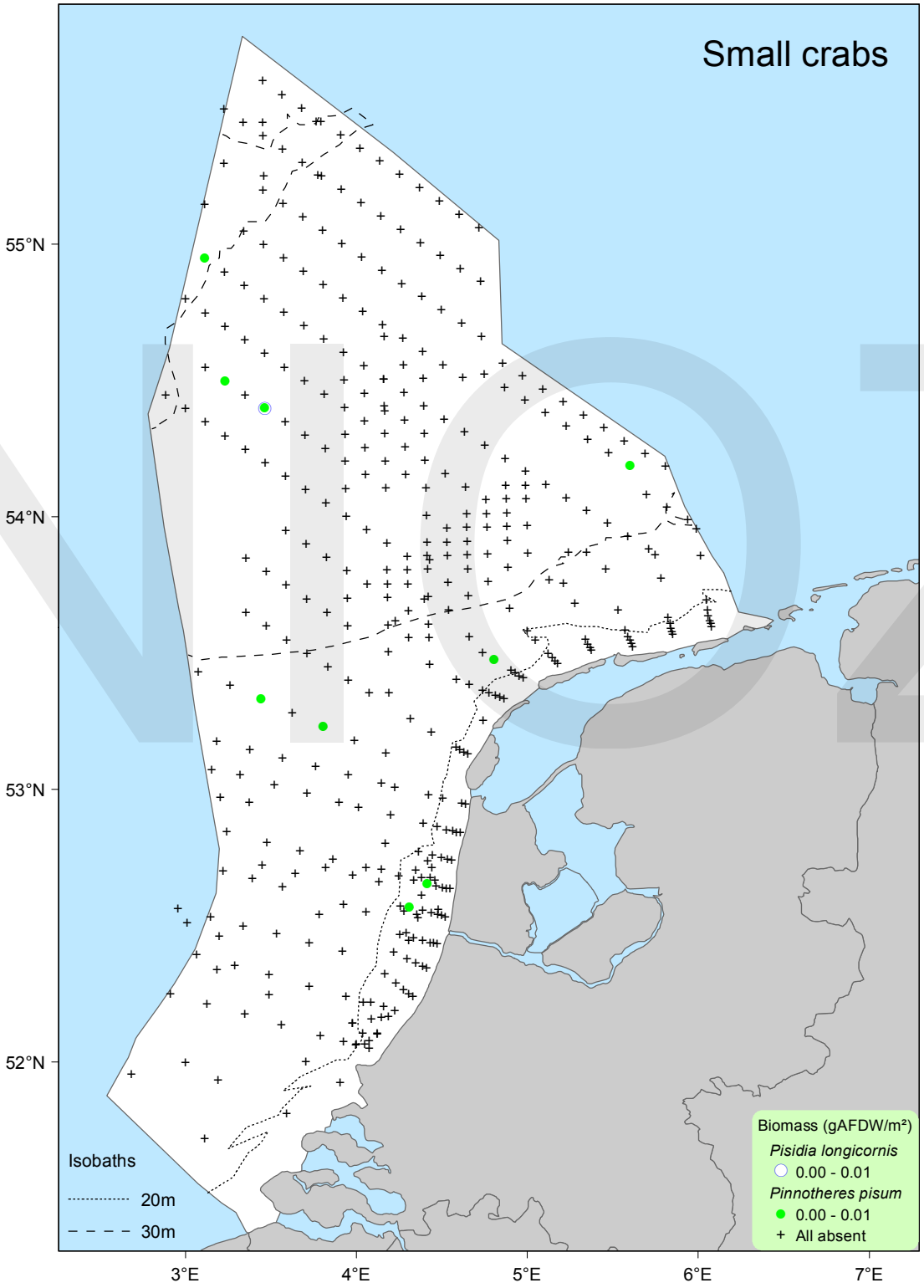

Callianassa spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 21.6
0,0 - 0,0
0,0 - 0,1
0,1 - 0,2
0,2 - 0,7
0,7 - 2,2
2,2 - 6,9
6,9 - 21,6

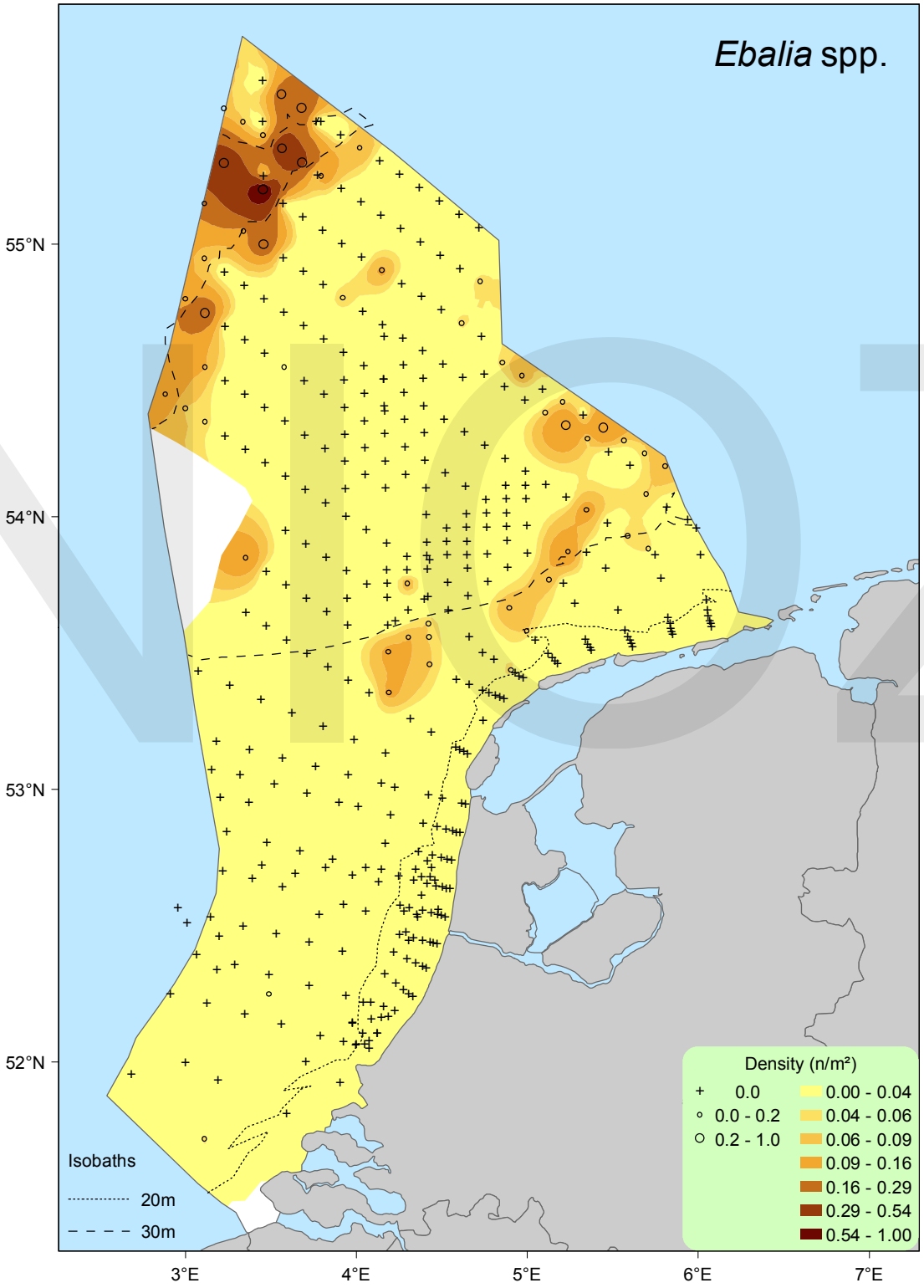

Callianassa spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.78
0.00
0.00 - 0.01
0.01 - 0.03
0.03 - 0.08
0.08 - 0.21
0.21 - 0.59
0.59 - 1.78

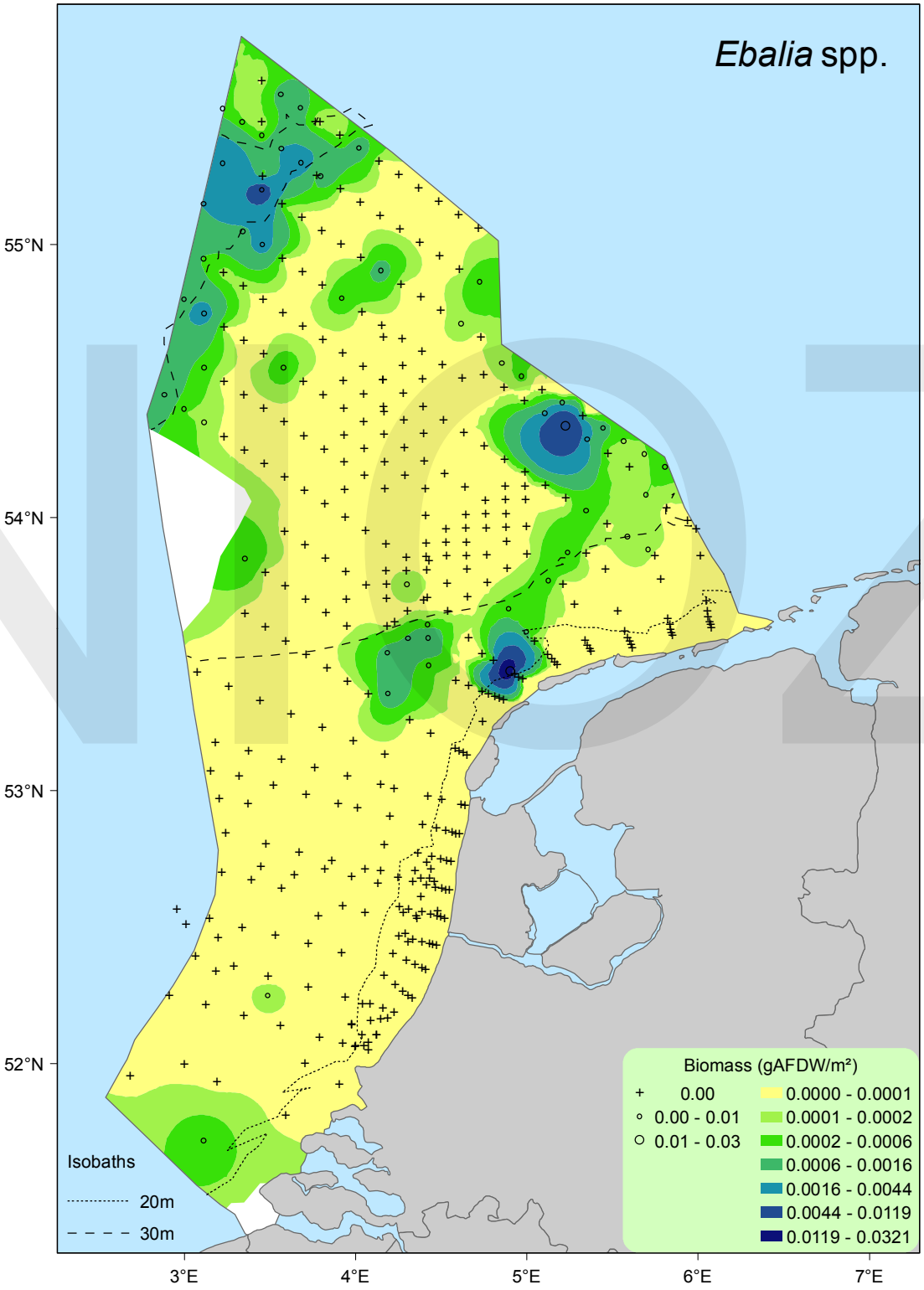

Pagurus bernhardus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 6.4
0.00 - 0.05
0.05 - 0.06
0.06 - 0.11
0.11 - 0.25
0.25 - 0.69
0.69 - 2.07
2.07 - 6.40

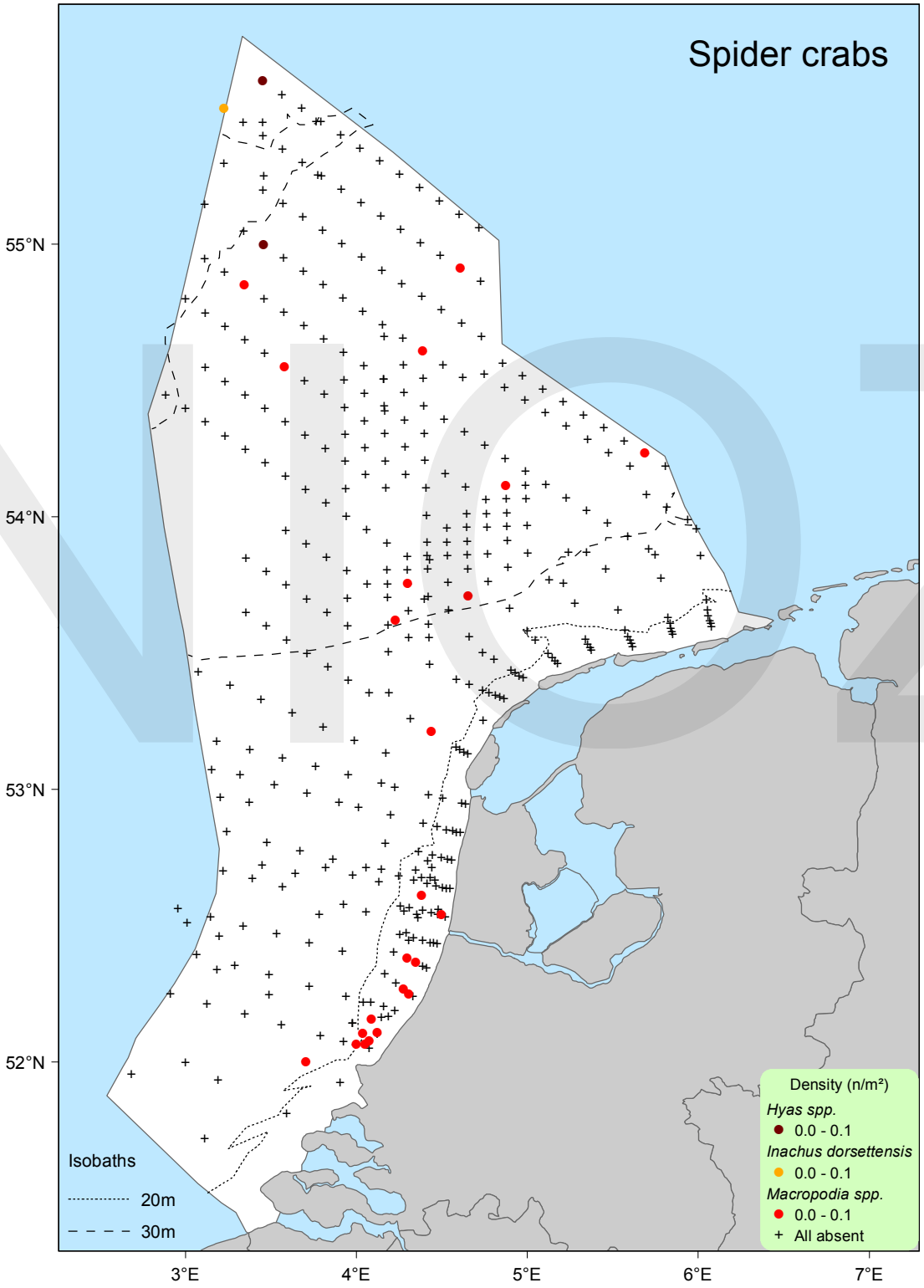

Pagurus bernhardus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 4.53
0.00 - 0.02
0.02 - 0.07
0.07 - 0.18
0.18 - 0.42
0.42 - 0.94
0.94 - 2.07
2.07 - 4.53
Isobaths
20m
30m

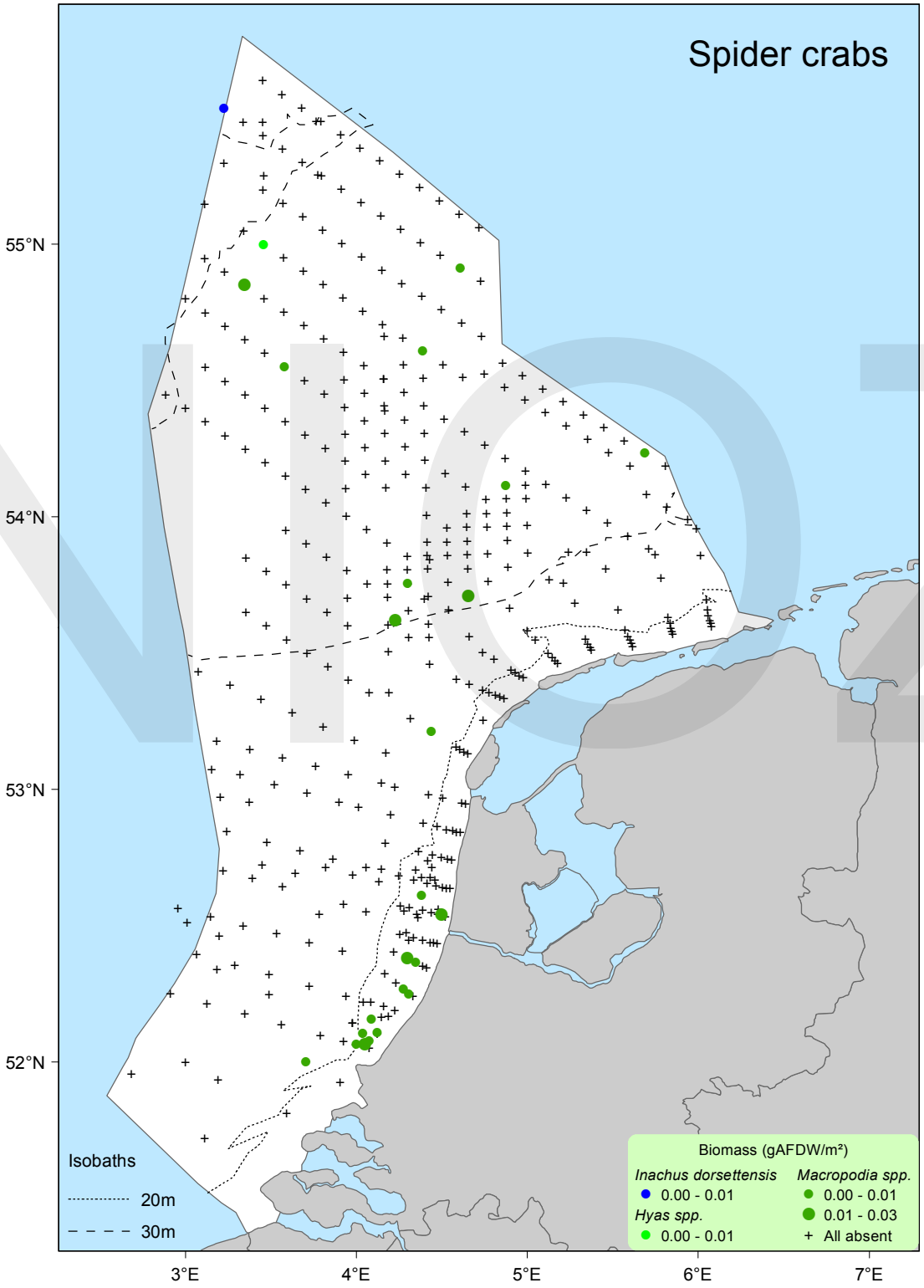

Small crabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Pinnotheres pisum
0.0 - 0.1
Pisidia longicornis
0.0 - 0.1
All absent

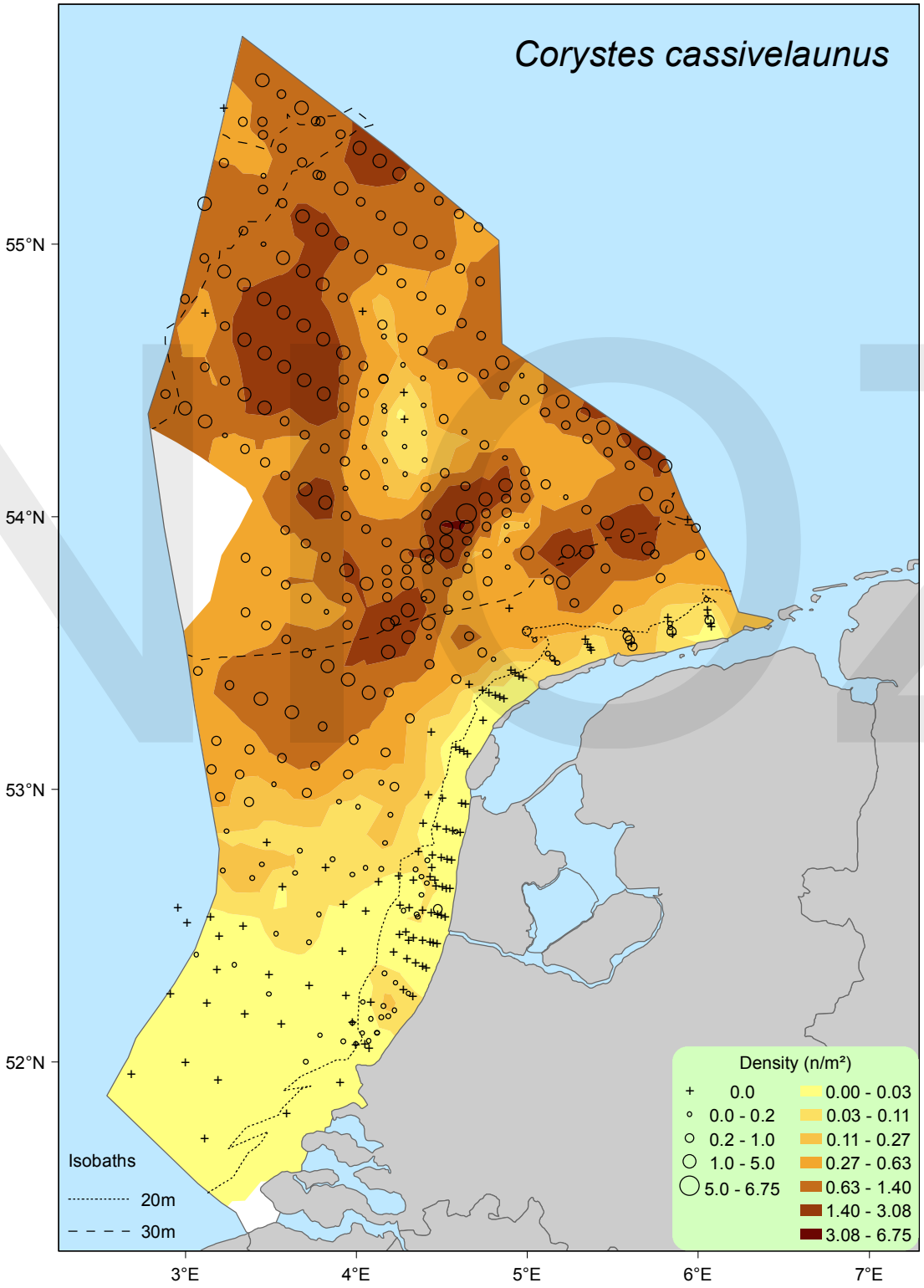

Small crabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Pisidia longicornis
0.00 - 0.01
Pinnotheres pisum
0.00 - 0.01
All absent

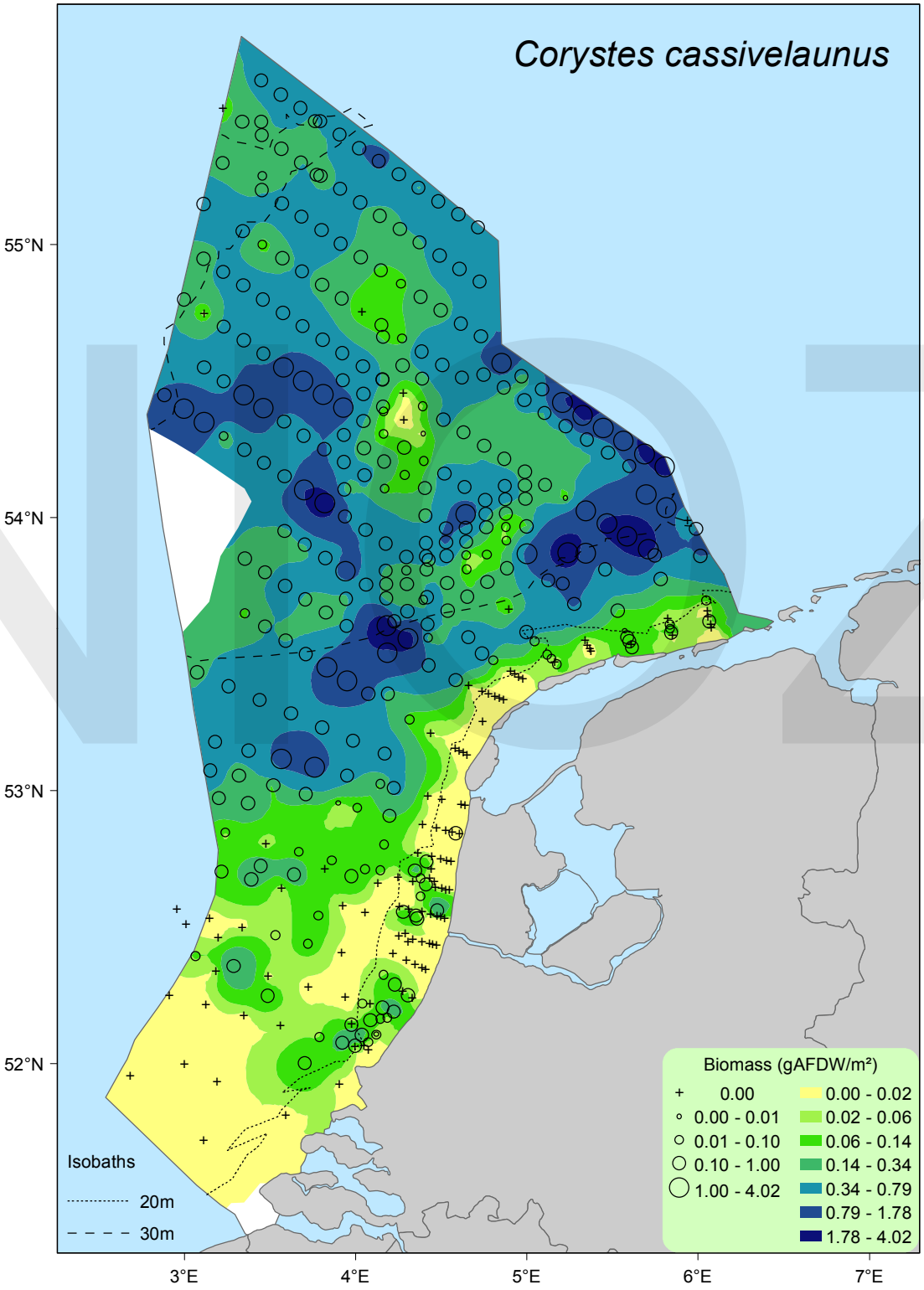

Ebalia spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
0.00 - 0.04
0.04 - 0.06
0.06 - 0.09
0.09 - 0.16
0.16 - 0.29
0.29 - 0.54
0.54 - 1.00

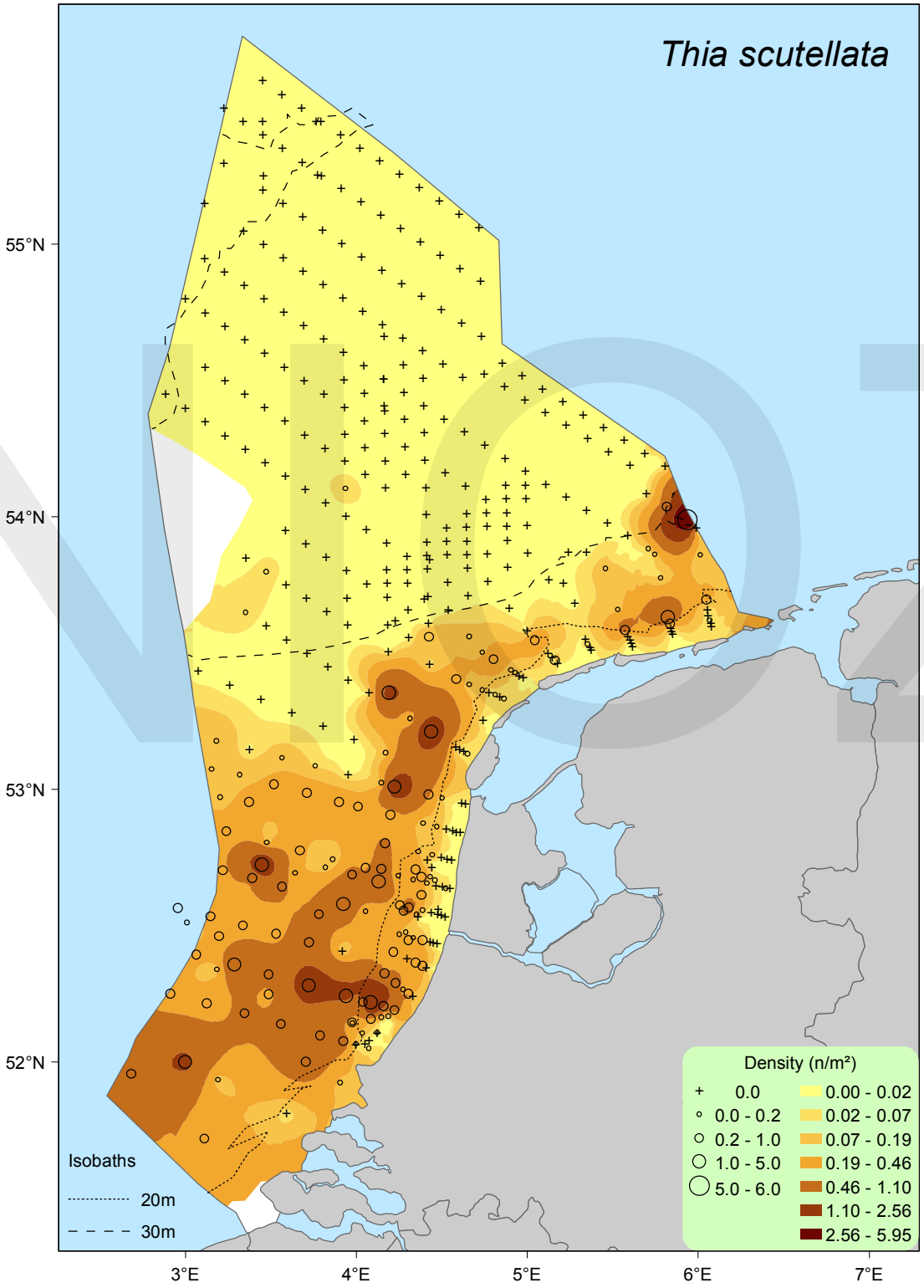

Ebalia spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.03
0.0000 - 0.0001
0.0001 - 0.0002
0.0002 - 0.0006
0.0006 - 0.0016
0.0016 - 0.0044
0.0044 - 0.0119
0.0119 - 0.0321

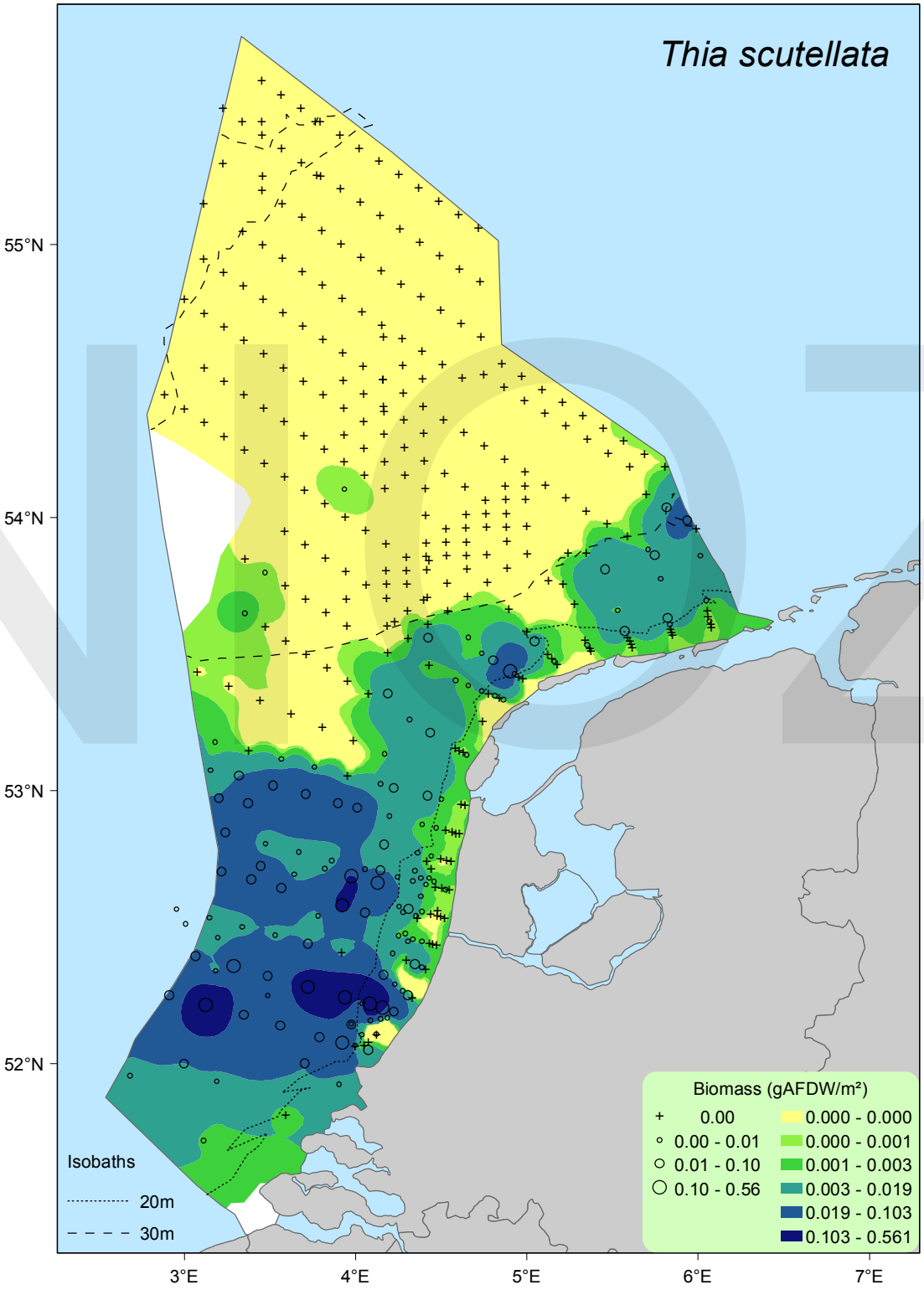

Spider crabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Hyas spp.
0.0 - 0.1
Inachus dorsettensis
0.0 - 0.1
Macropodia spp.
0.0 - 0.1
All absent

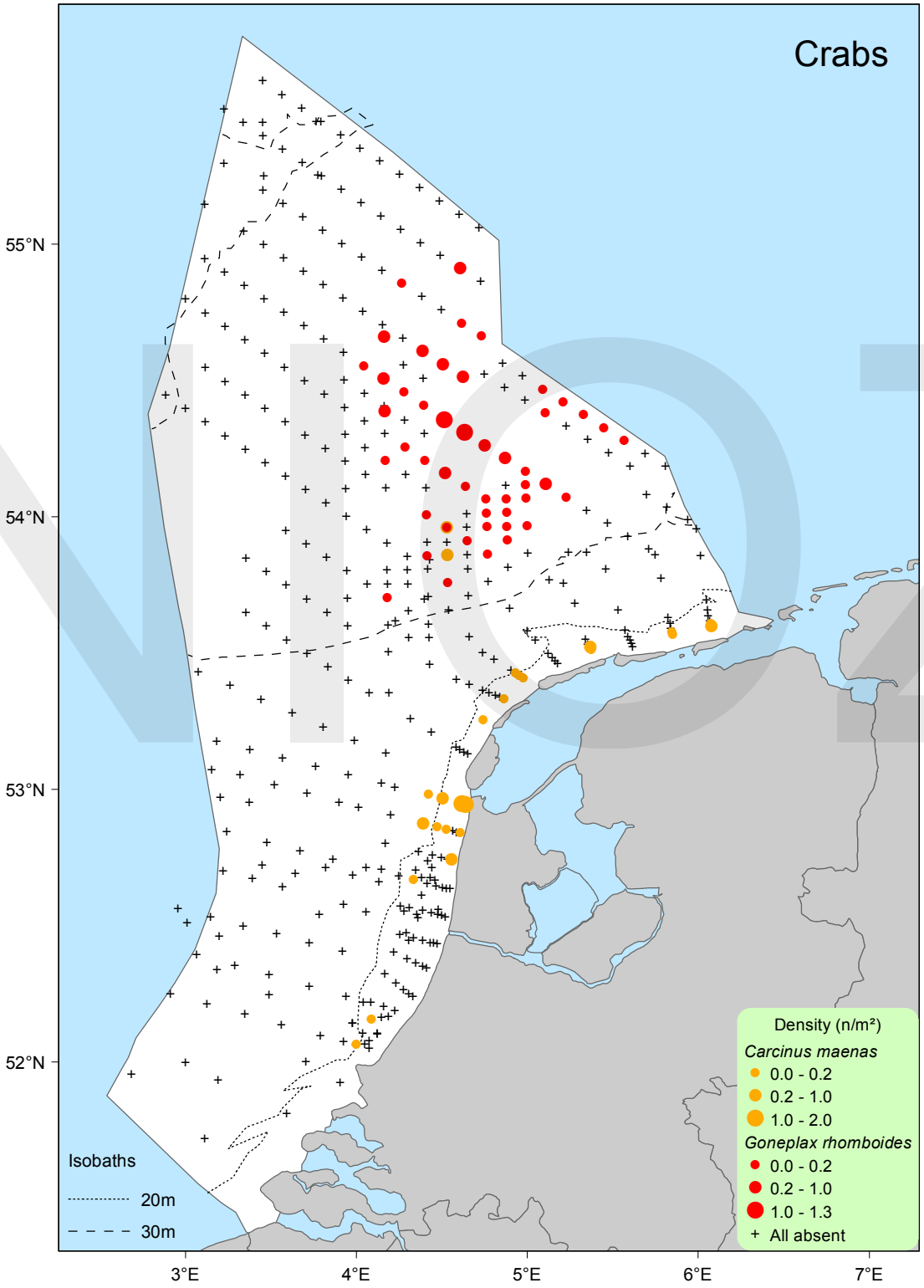

Spider crabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Inachus dorsettensis
0.00 - 0.01
Hyas spp.
0.00 - 0.01
Macropodia spp.
0.00 - 0.01
0.01 - 0.03
All absent

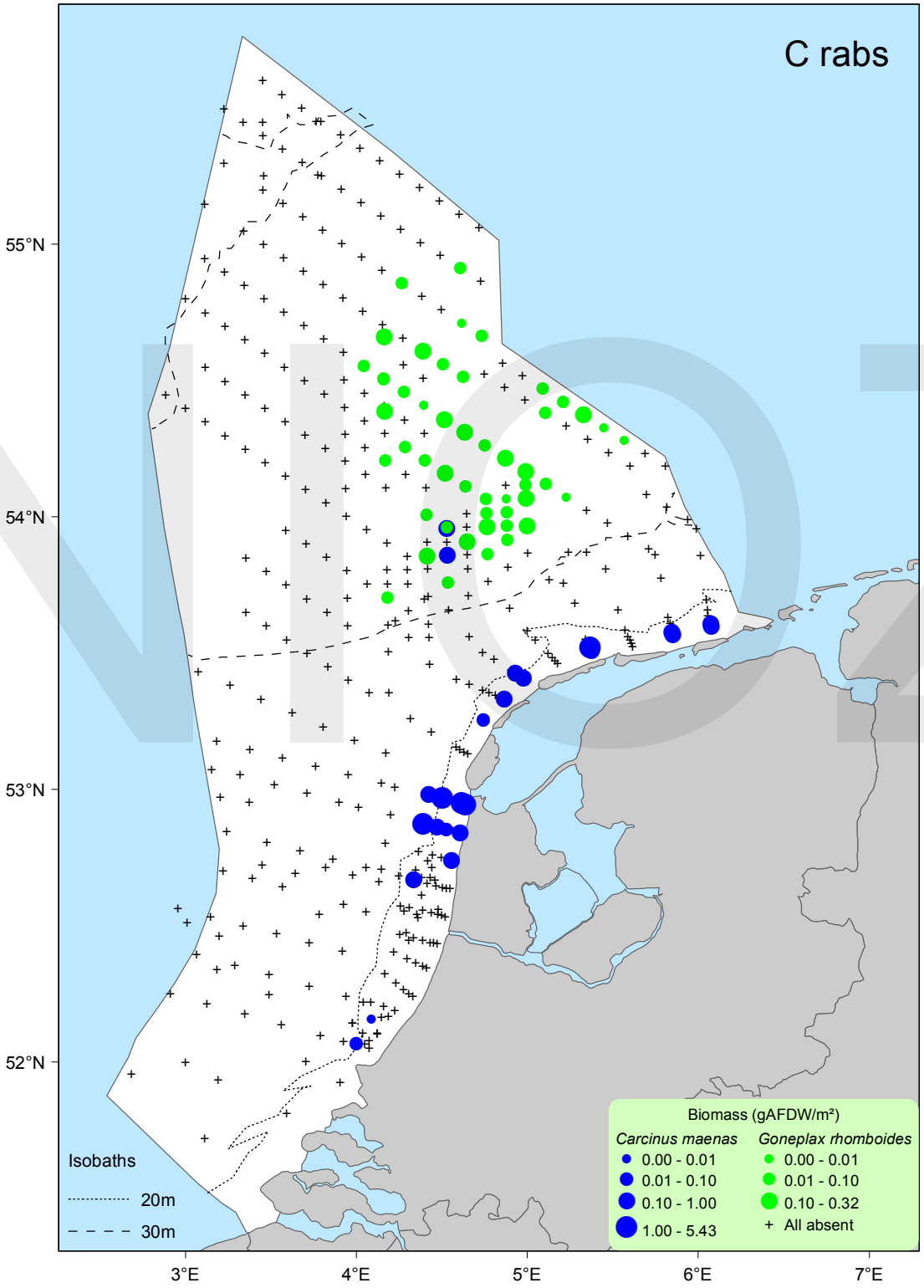

Corystes cassivelaunus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 6.75
0.00 - 0.03
0.03 - 0.11
0.11 - 0.27
0.27 - 0.63
0.63 - 1.40
1.40 - 3.08
3.08 - 6.75

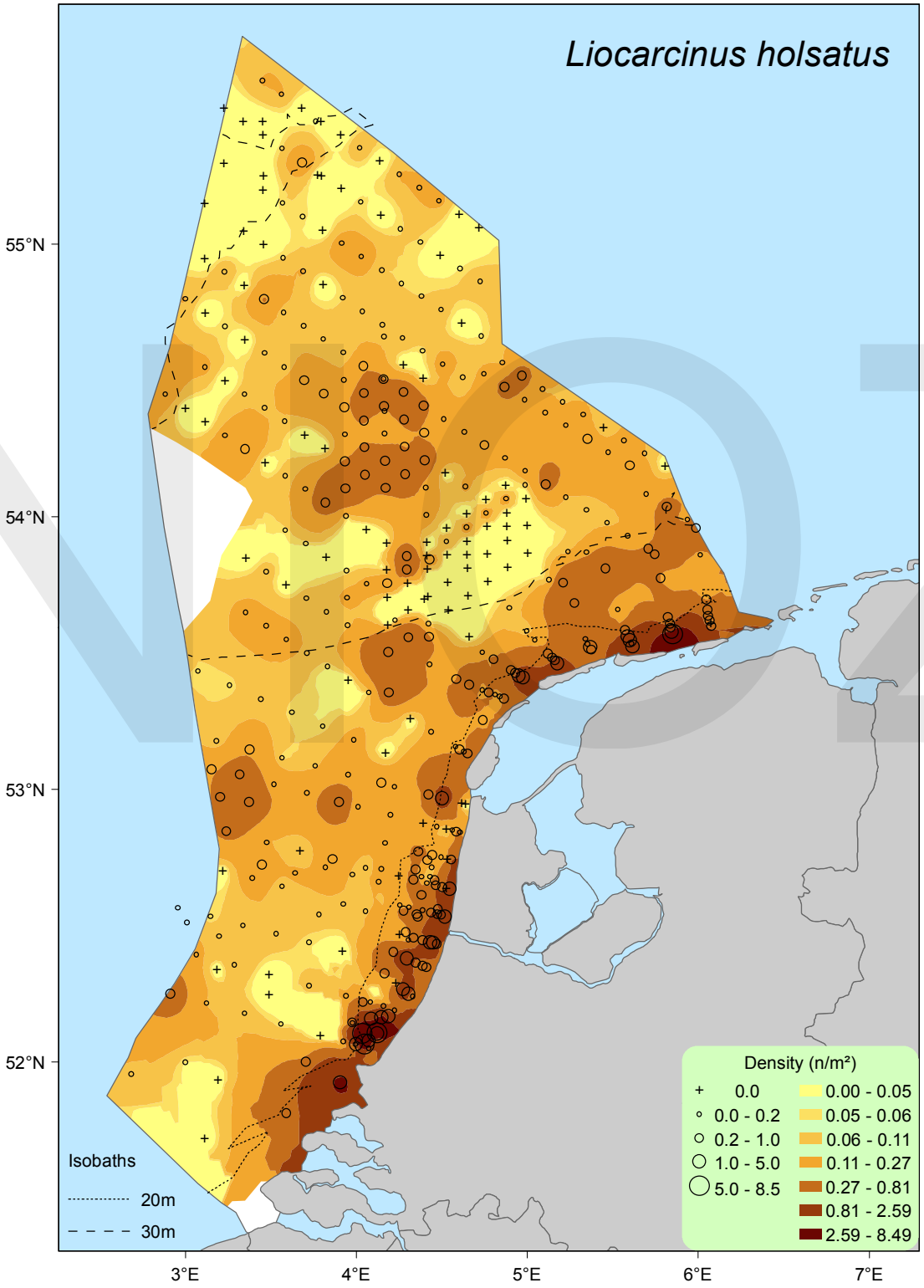

Corystes cassivelaunus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 4.02
0.00 - 0.02
0.02 - 0.06
0.06 - 0.14
0.14 - 0.34
0.34 - 0.79
0.79 - 1.78
1.78 - 4.02

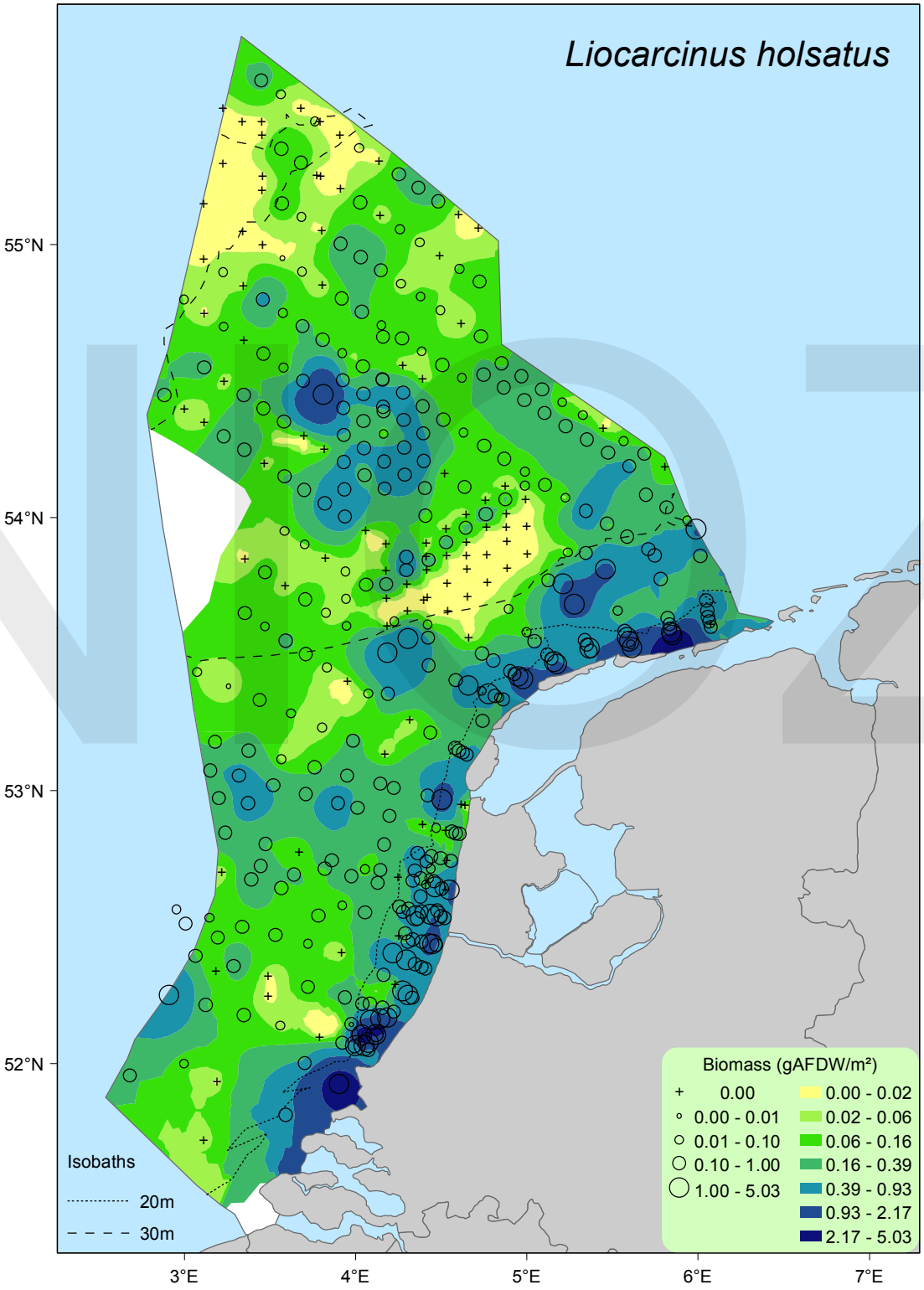

Thia scutellata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 6.0
0.00 - 0.02
0.02 - 0.07
0.07 - 0.19
0.19 - 0.46
0.46 - 1.10
1.10 - 2.56
2.56 - 5.95

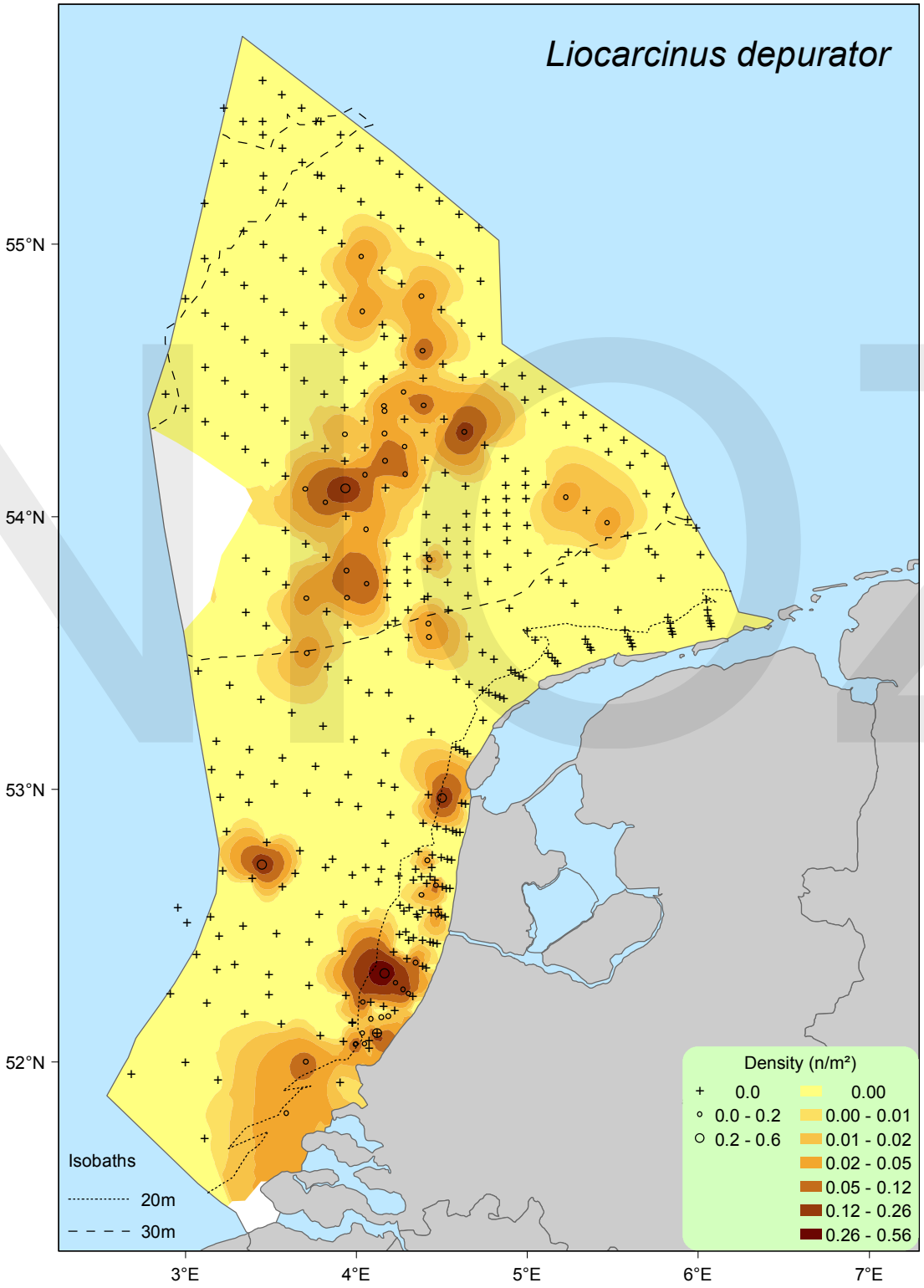

Thia scutellata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.56
0.000 - 0.000
0.000 - 0.001
0.001 - 0.003
0.003 - 0.019
0.019 - 0.103
0.103 - 0.561

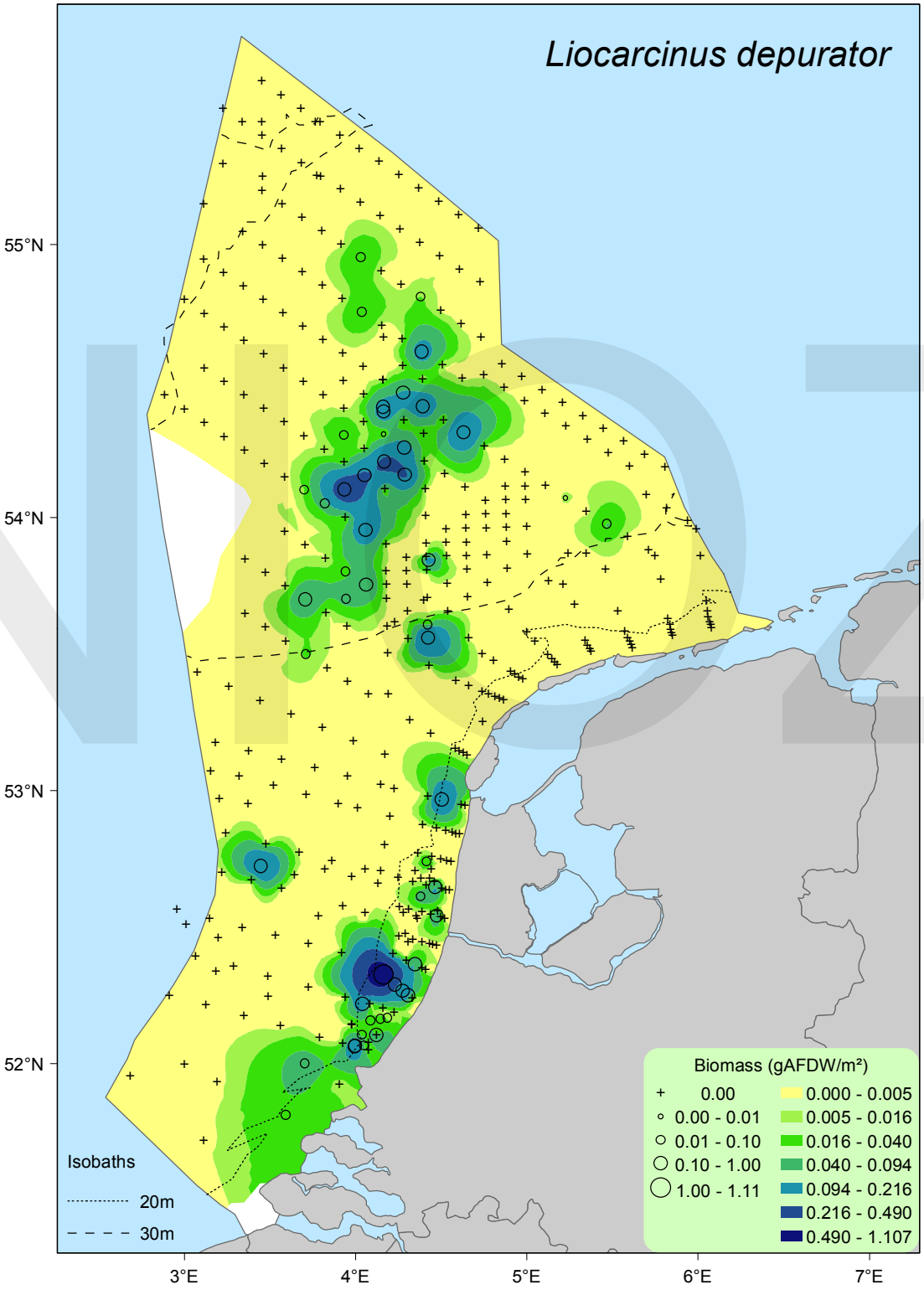

Crabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Carcinus maenas
0.0 - 0.2
0.2 - 1.0
1.0 - 2.0
Goneplax rhomboides
0.0 - 0.2
0.2 - 1.0
1.0 - 1.3
All absent

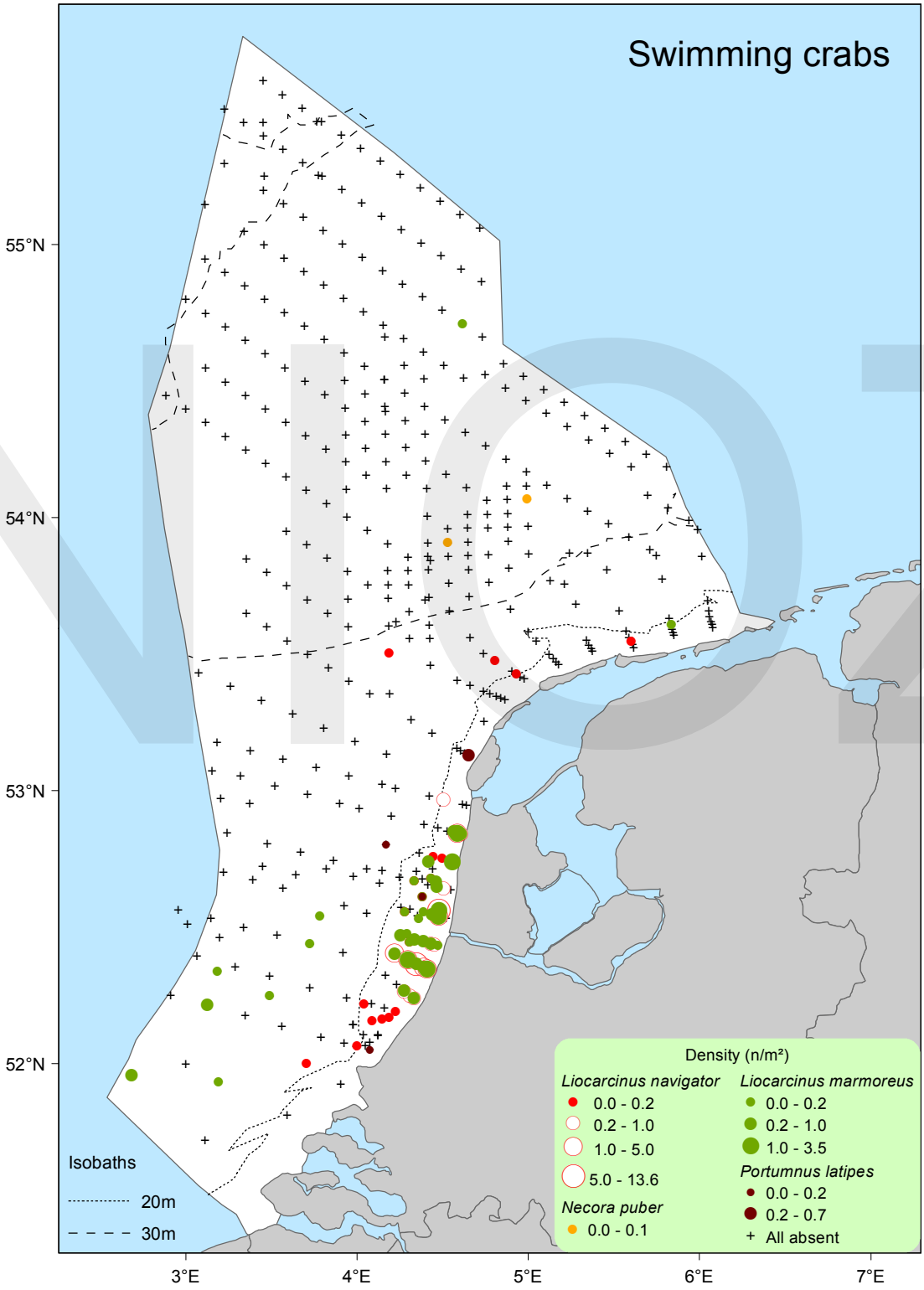

C rabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Carcinus maenas
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 5.43
Goneplax rhomboides
0.00 - 0.01
0.01 - 0.10
0.10 - 0.32
All absent

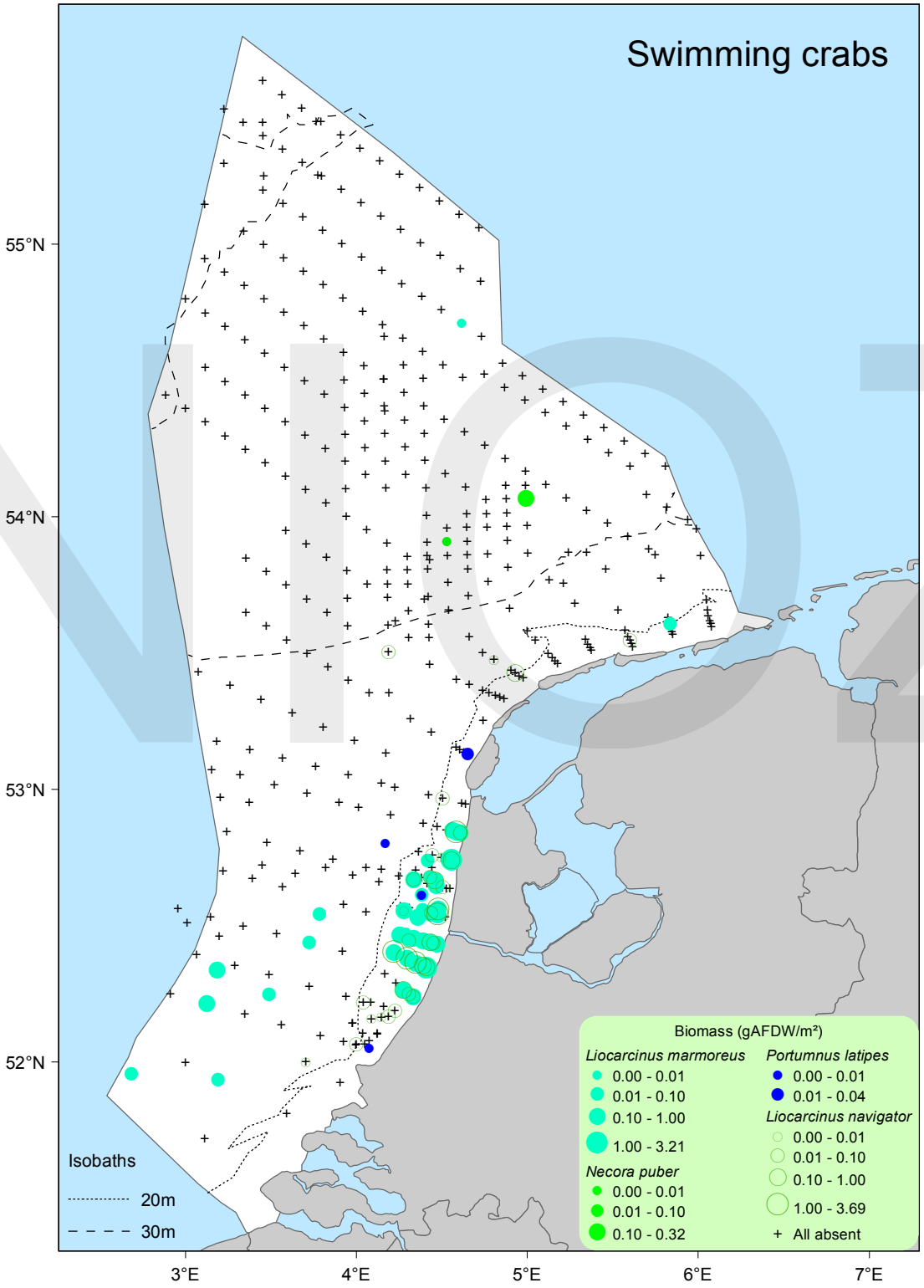

Liocarcinus holsatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 8.5
0.00 - 0.05
0.05 - 0.06
0.06 - 0.11
0.11 - 0.27
0.27 - 0.81
0.81 - 2.59
2.59 - 8.49

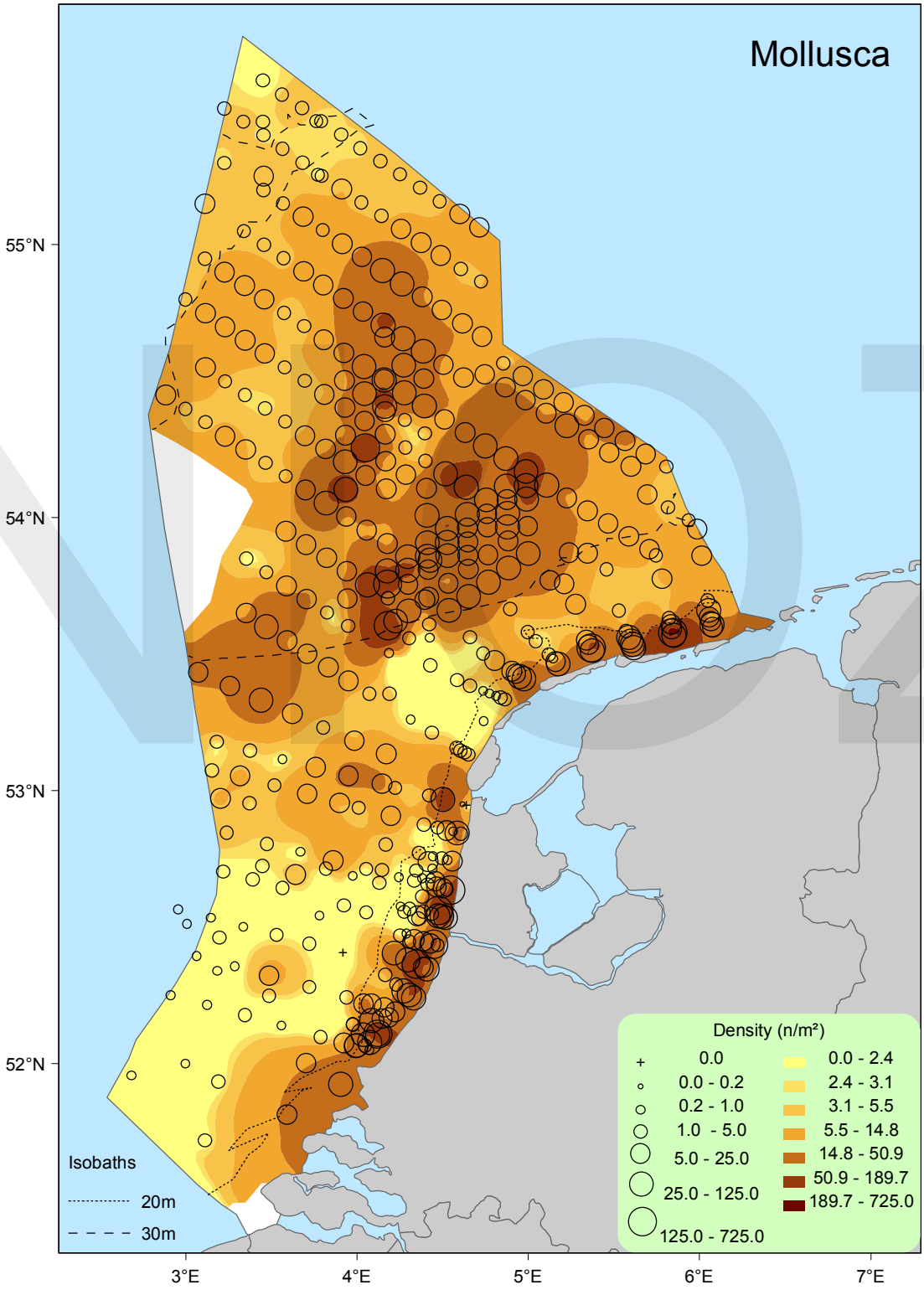

Liocarcinus holsatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 5.03
0.00 - 0.02
0.02 - 0.06
0.06 - 0.16
0.16 - 0.39
0.39 - 0.93
0.93 - 2.17
2.17 - 5.03

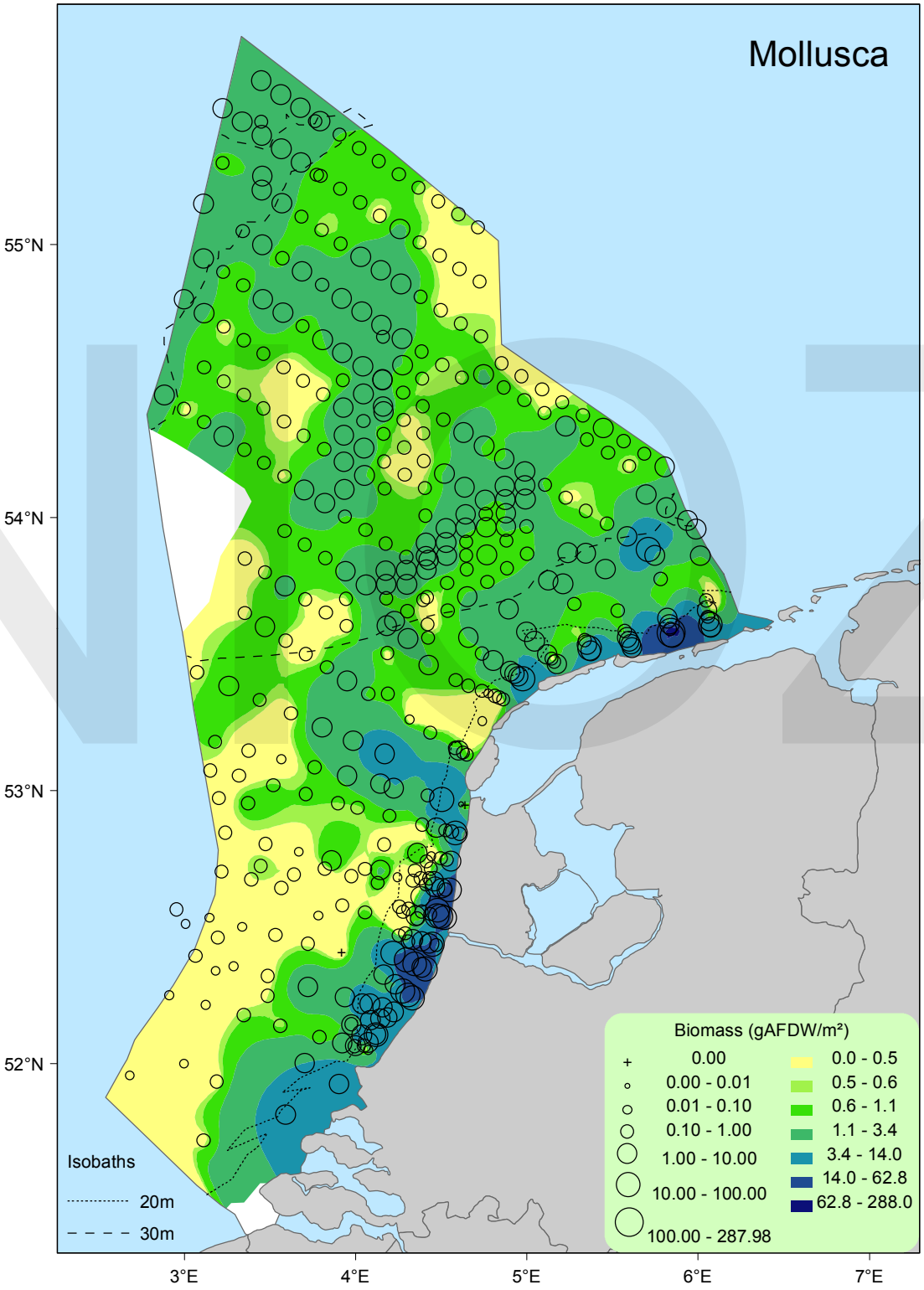

Liocarcinus depurator
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.6
0.00
0.00 - 0.01
0.01 - 0.02
0.02 - 0.05
0.05 - 0.12
0.12 - 0.26
0.26 - 0.56

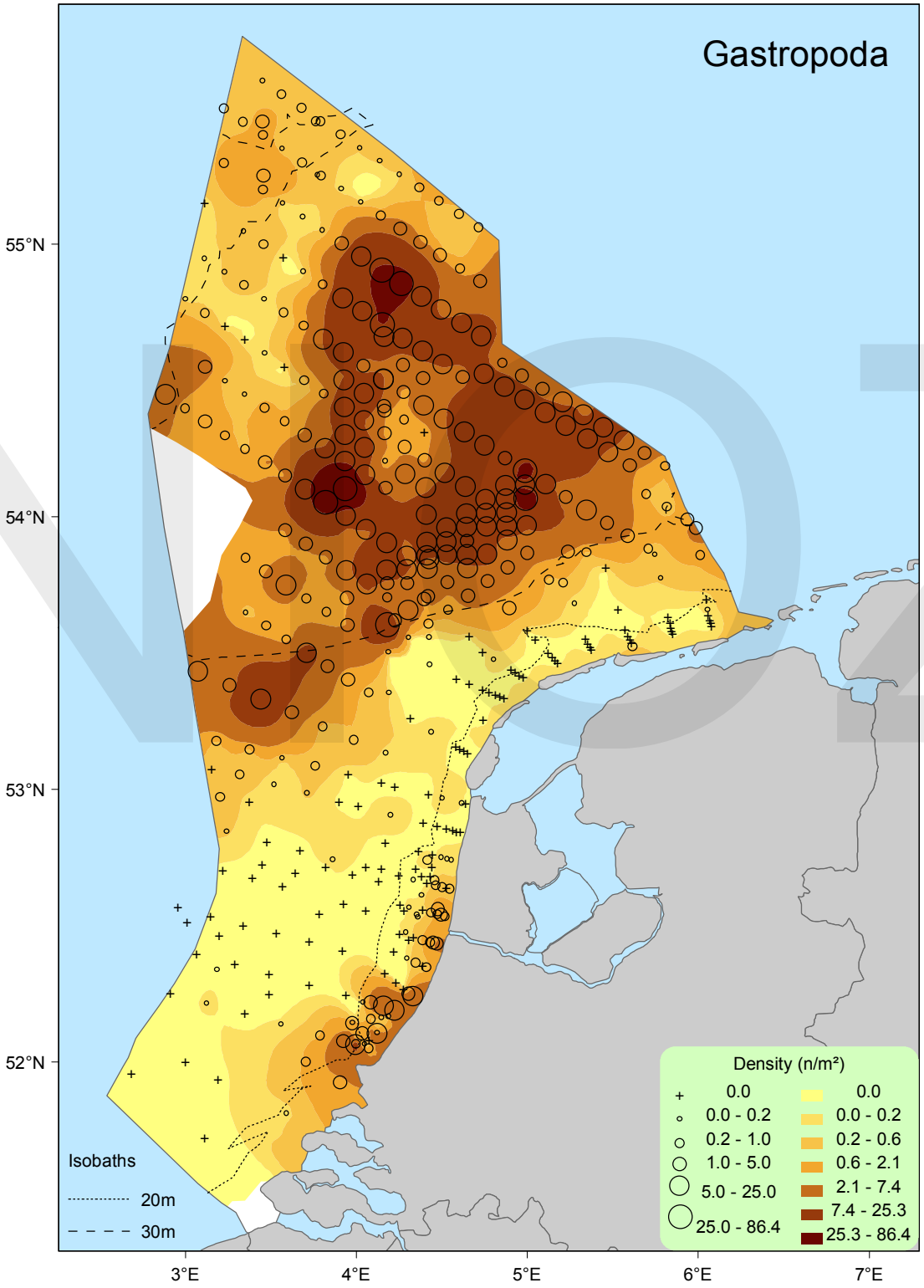

Liocarcinus depurator
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.11
0.000 - 0.005
0.005 - 0.016
0.016 - 0.040
0.040 - 0.094
0.094 - 0.216
0.216 - 0.490
0.490 - 1.107

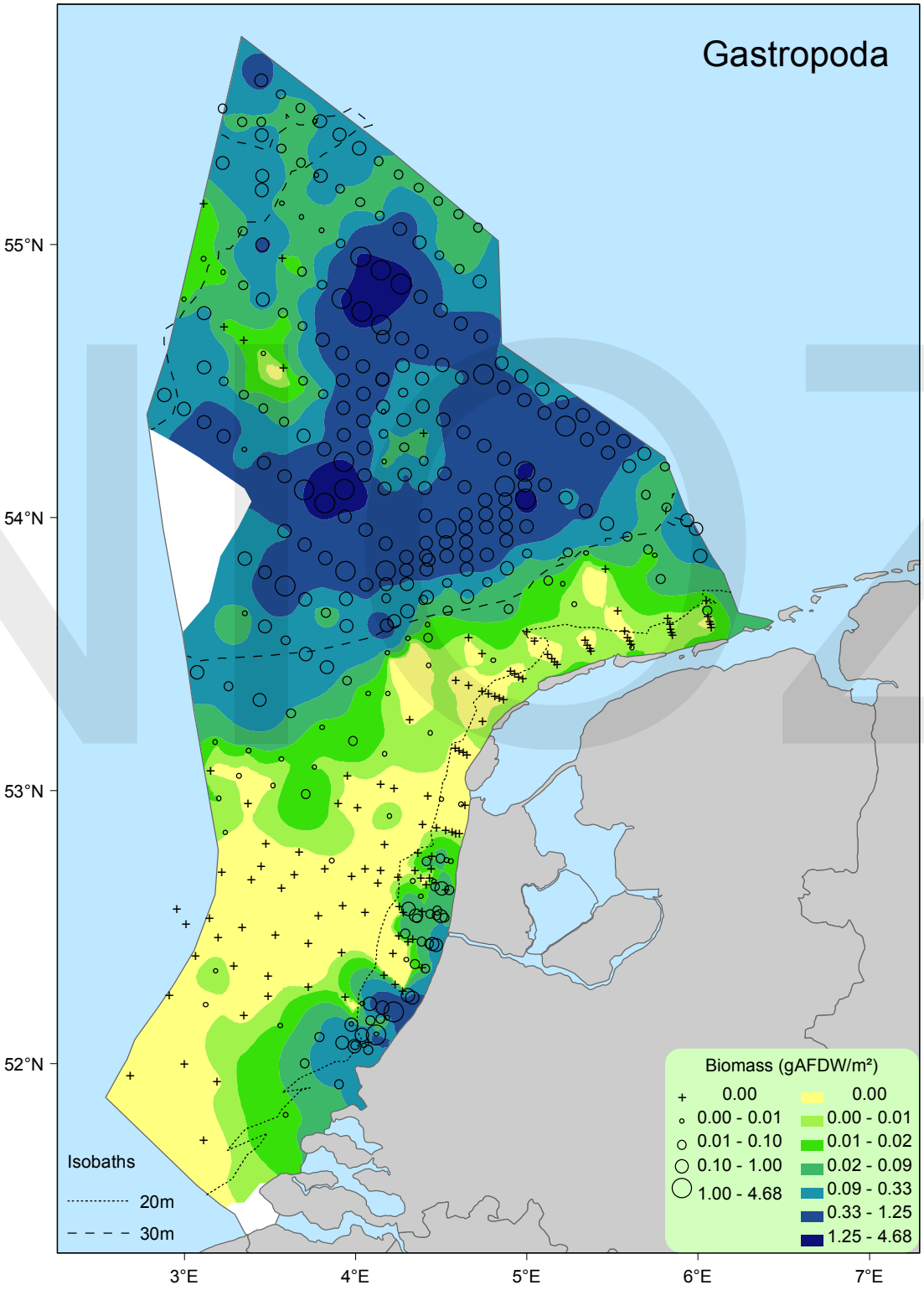

Swimming crabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Liocarcinus navigator
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 13.6
Necora puber
0.0 - 0.1
Liocarcinus marmoreus
0.0 - 0.2
0.2 - 1.0
1.0 - 3.5
Portumnus latipes
0.0 - 0.2
0.2 - 0.7
All absent

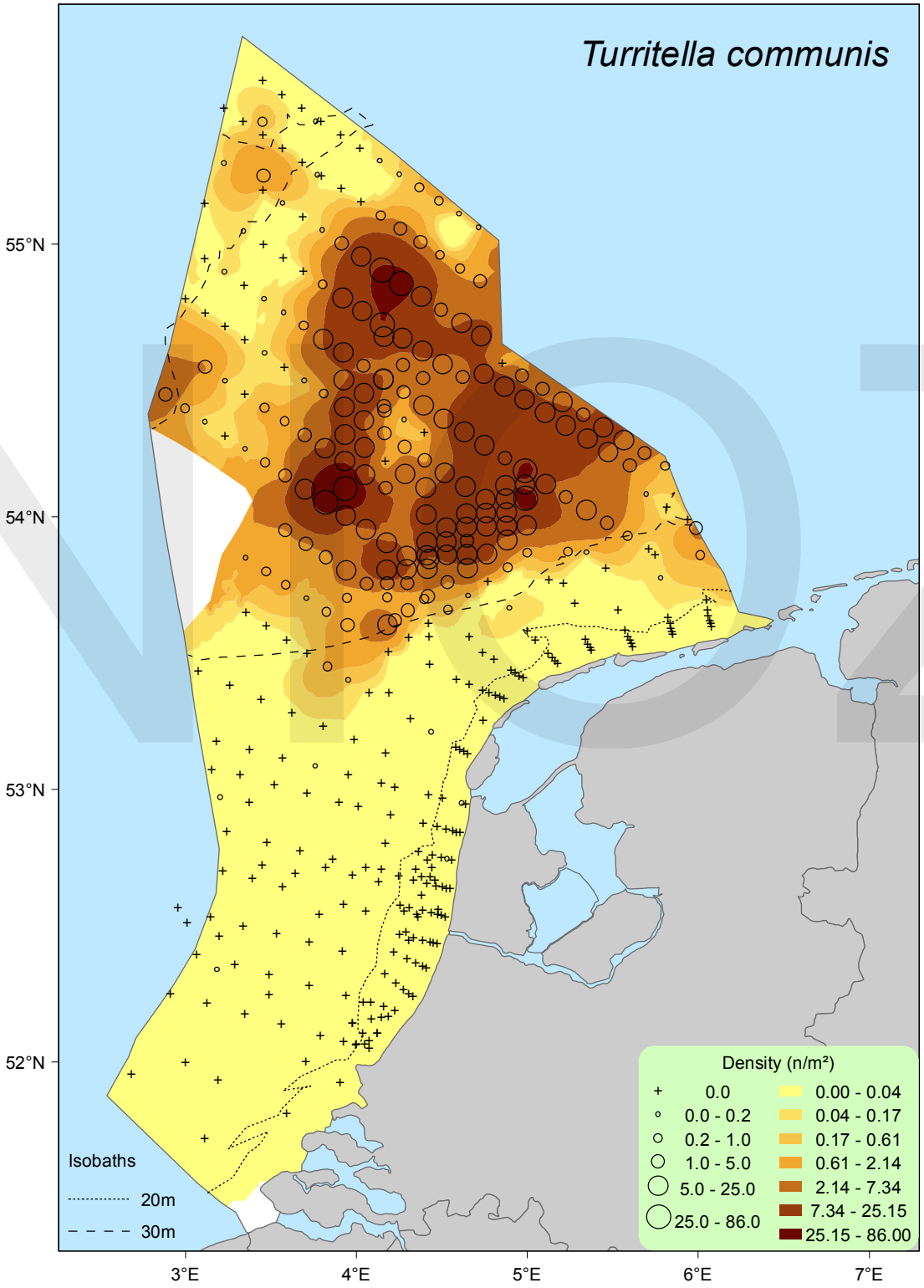

Swimming crabs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Liocarcinus marmoreus
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 3.21
Necora puber
0.00 - 0.01
0.01 - 0.10
0.10 - 0.32
Portumnus latipes
0.00 - 0.01
0.01 - 0.04
Liocarcinus navigator
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 3.69
All absent

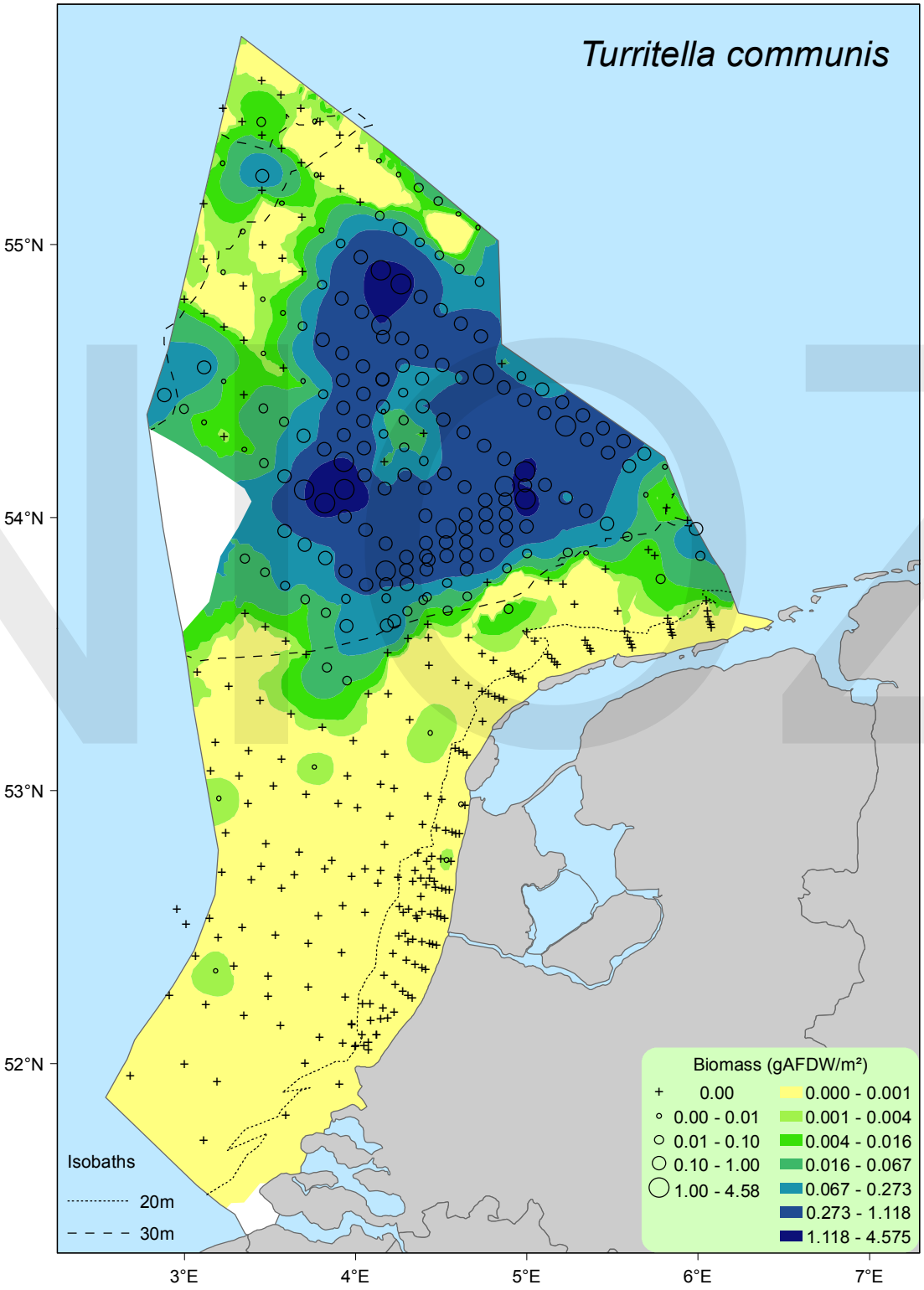

Mollusca
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 725.0
0.0 - 2.4
2.4 - 3.1
3.1 - 5.5
5.5 - 14.8
14.8 - 50.9
50.9 - 189.7
189.7 - 725.0

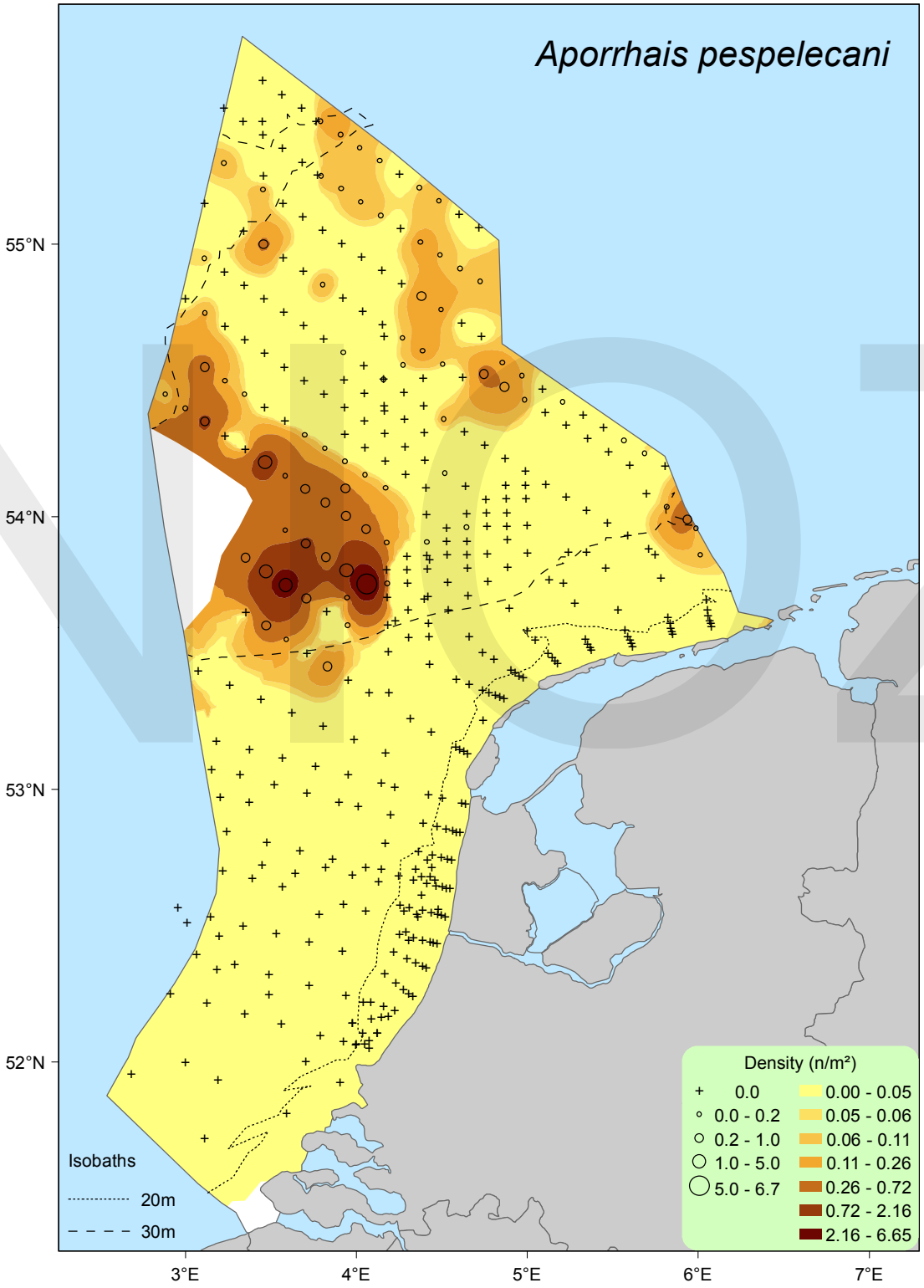

Mollusca
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 100.00
100.00 - 287.98
0.0 - 0.5
0.5 - 0.6
0.6 - 1.1
1.1 - 3.4
3.4 - 14.0
14.0 - 62.8
62.8 - 288.0

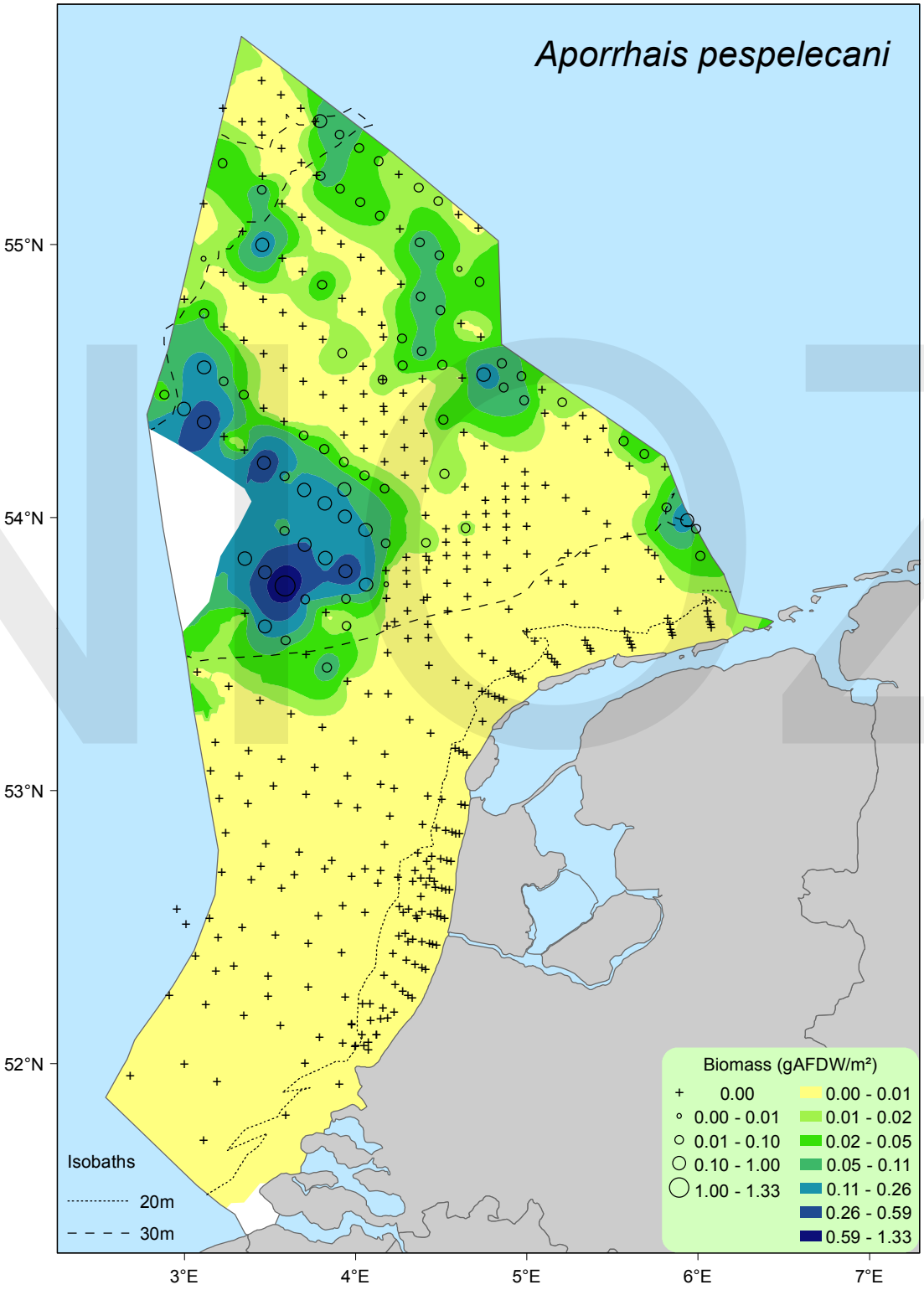

Gastropoda
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 86.4
0.0
0.0 - 0.2
0.2 - 0.6
0.6 - 2.1
2.1 - 7.4
7.4 - 25.3
25.3 - 86.4

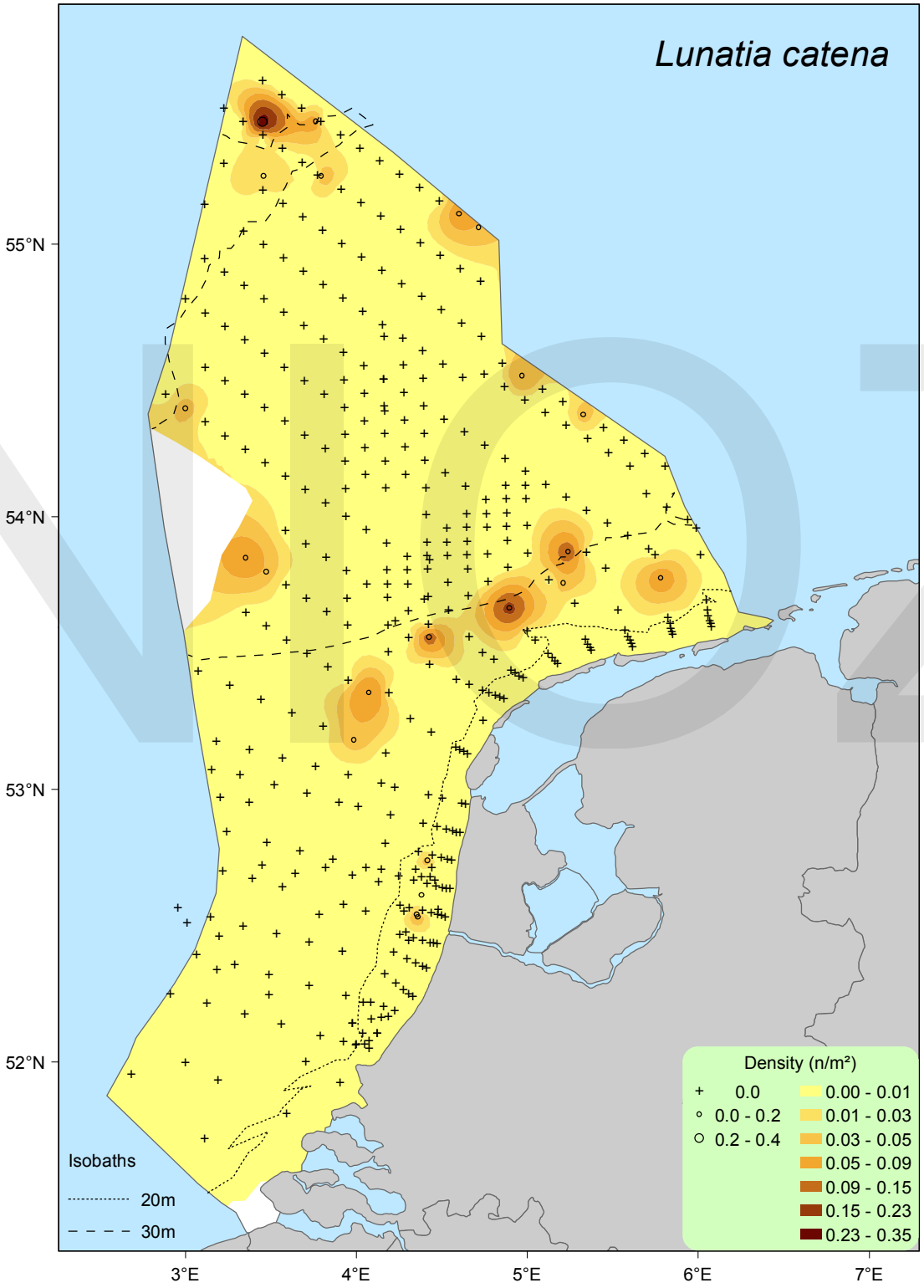

Gastropoda
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 4.68
0.00
0.00 - 0.01
0.01 - 0.02
0.02 - 0.09
0.09 - 0.33
0.33 - 1.25
1.25 - 4.68

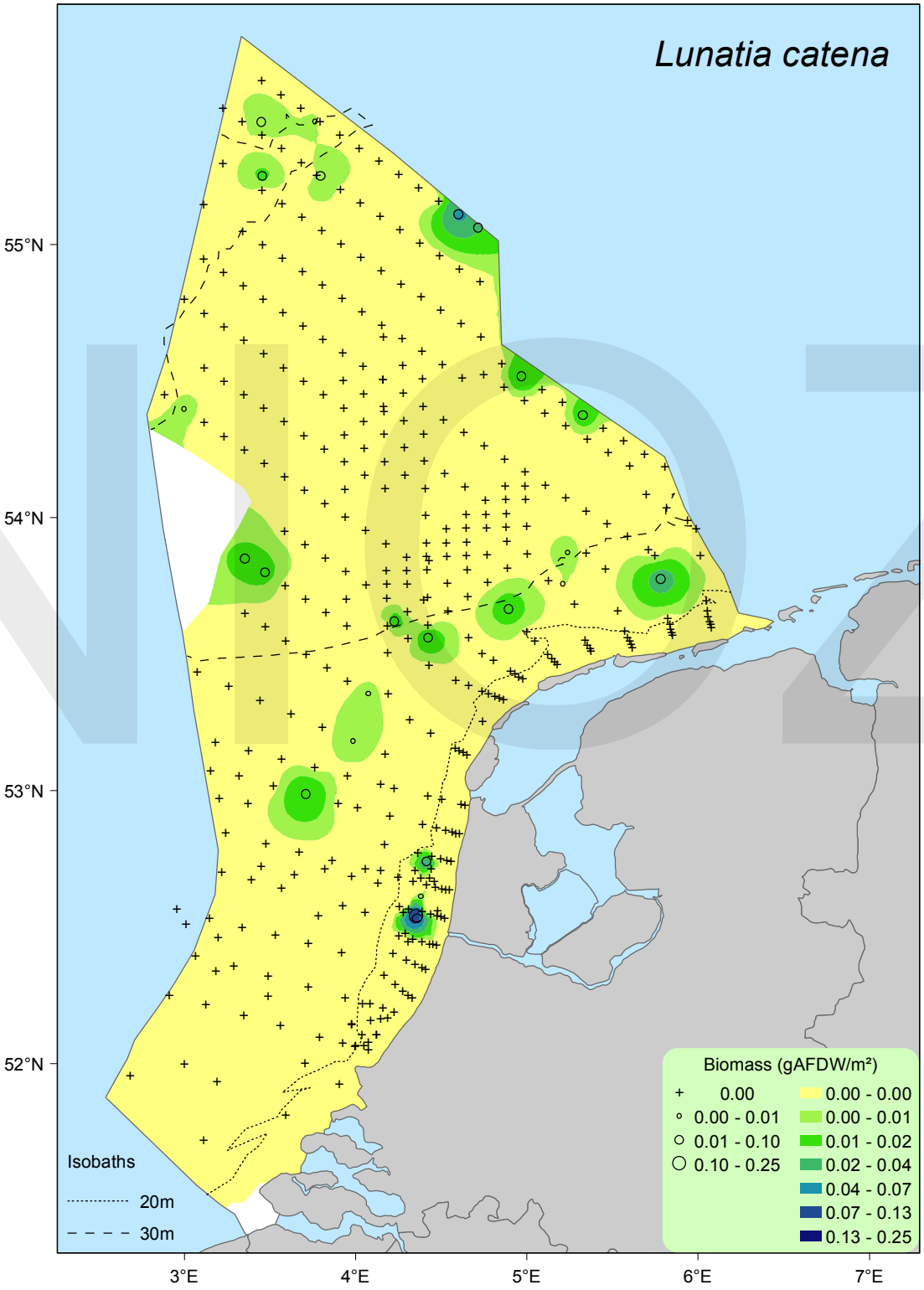

Turritella communis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 86.0
0.00 - 0.04
0.04 - 0.17
0.17 - 0.61
0.61 - 2.14
2.14 - 7.34
7.34 - 25.15
25.15 - 86.00

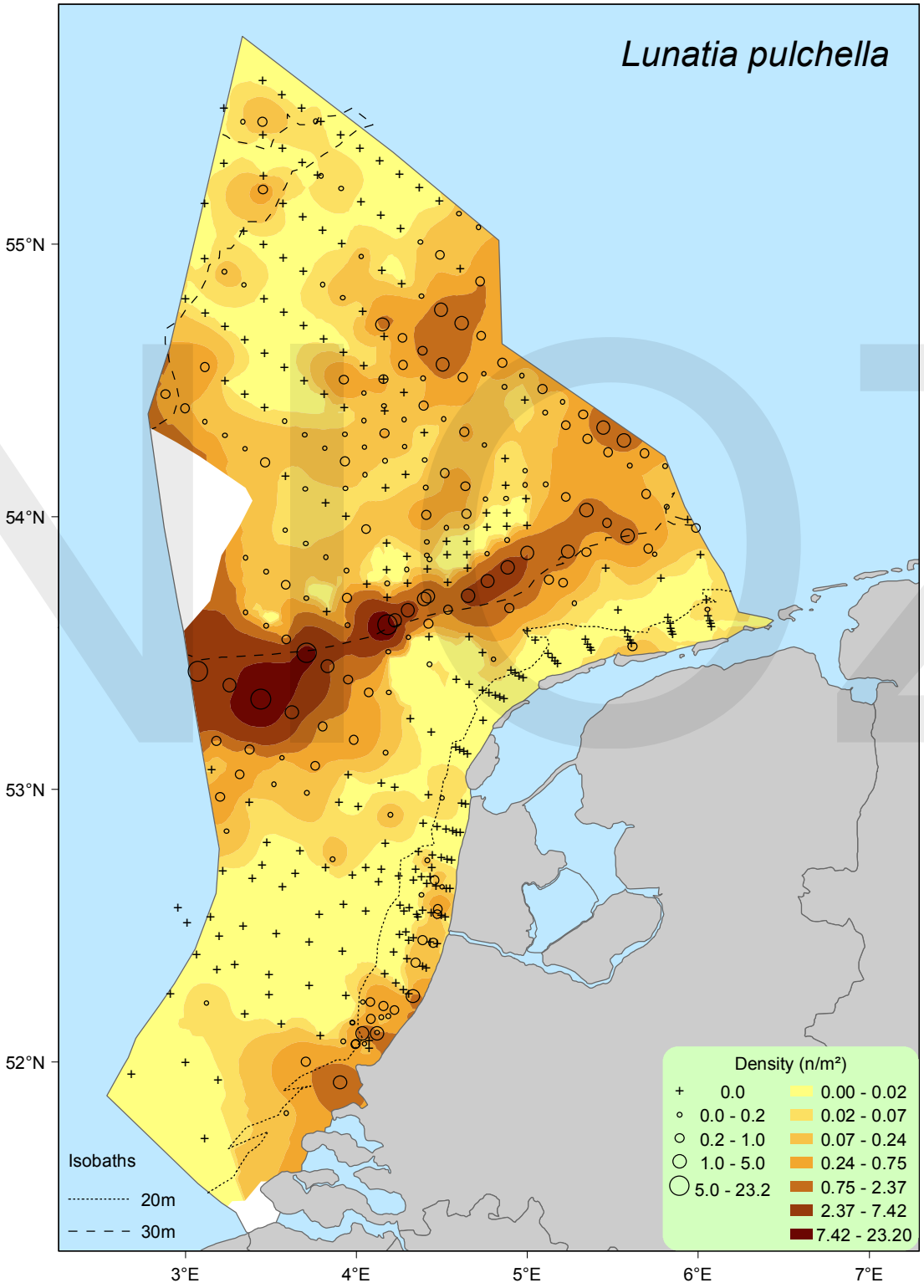

Turritella communis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 4.58
0.000 - 0.001
0.001 - 0.004
0.004 - 0.016
0.016 - 0.067
0.067 - 0.273
0.273 - 1.118
1.118 - 4.575

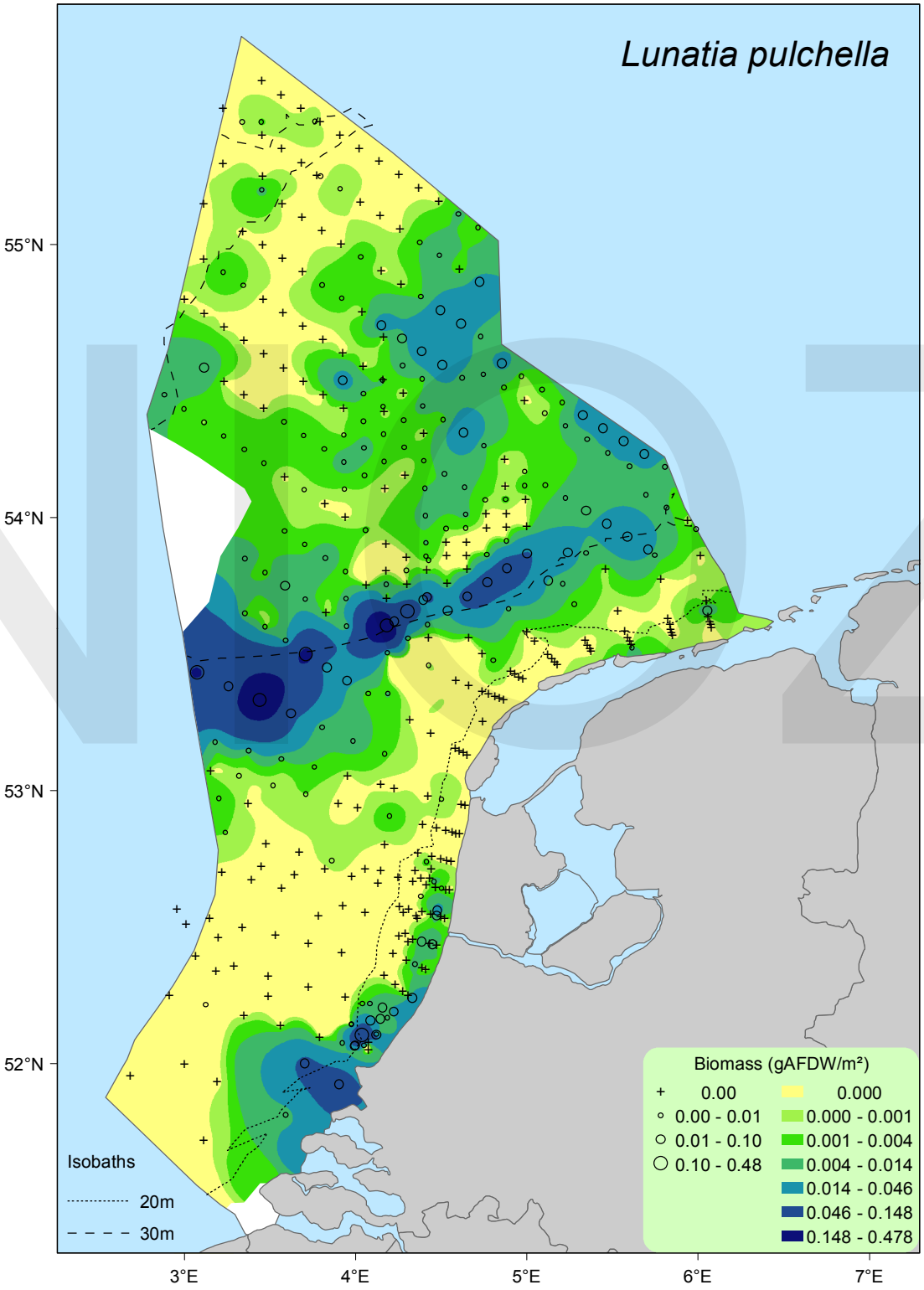

Aporrhais pespelecani
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 6.7
0.00 - 0.05
0.05 - 0.06
0.06 - 0.11
0.11 - 0.26
0.26 - 0.72
0.72 - 2.16
2.16 - 6.65

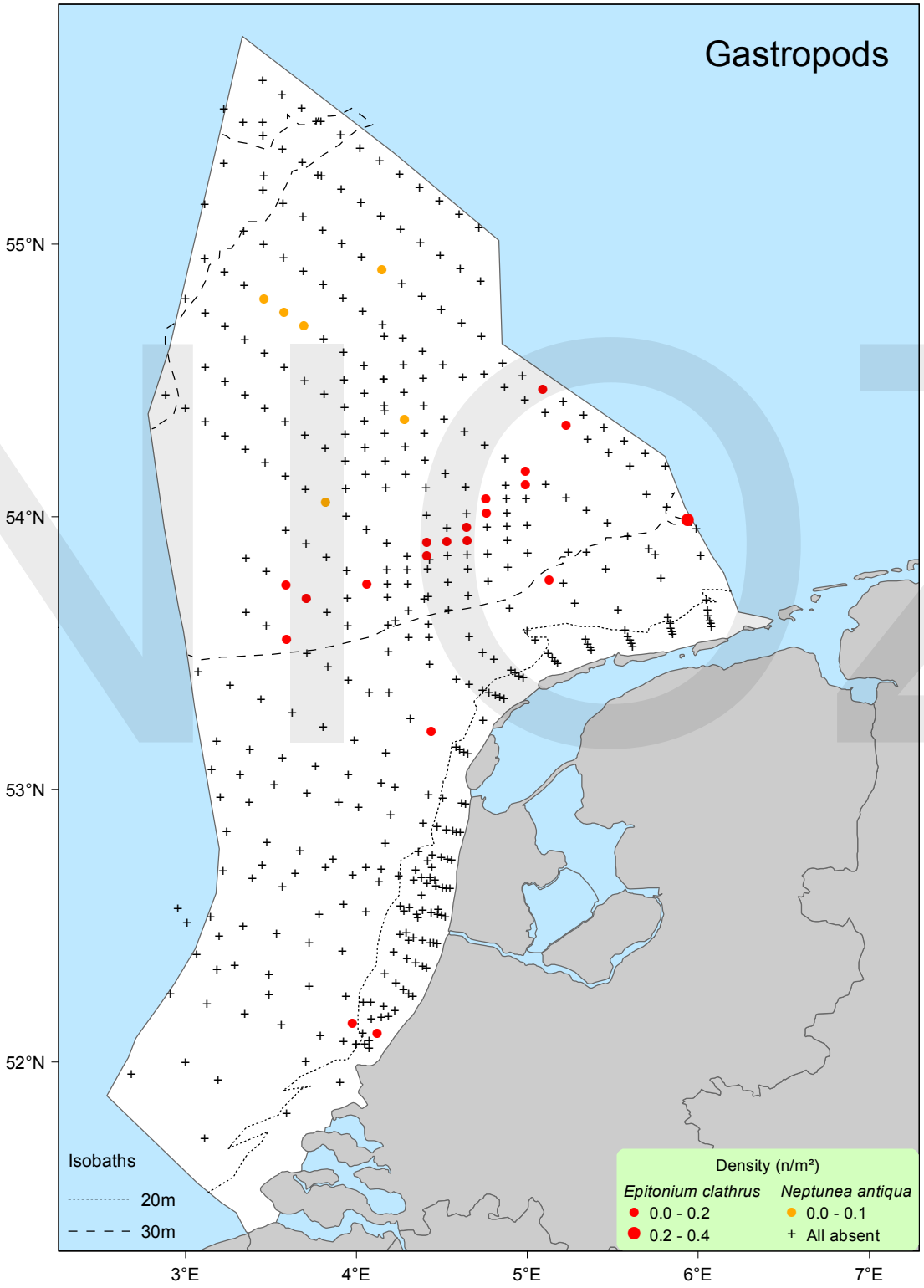

Aporrhais pespelecani
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.33
0.00 - 0.01
0.01 - 0.02
0.02 - 0.05
0.05 - 0.11
0.11 - 0.26
0.26 - 0.59
0.59 - 1.33

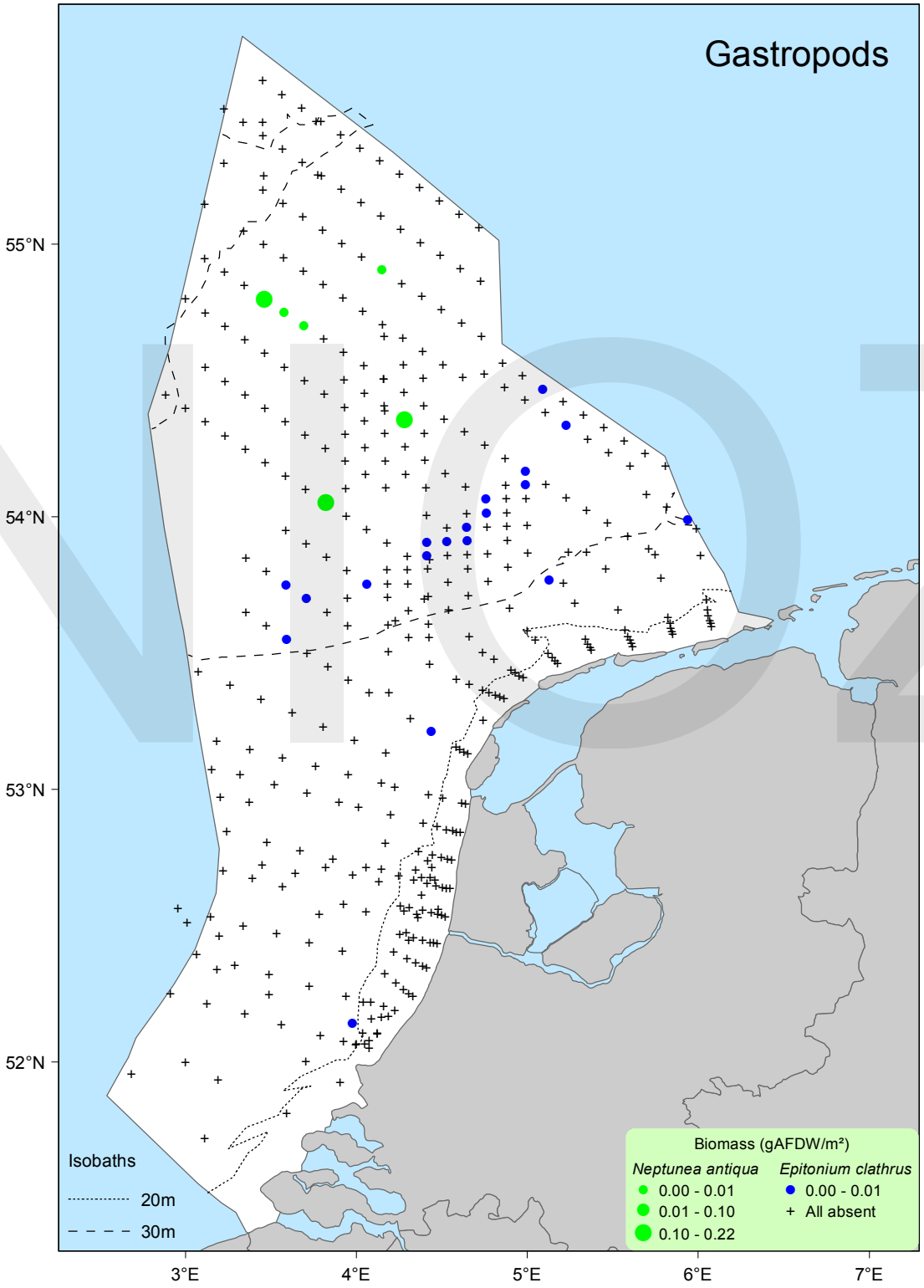

Lunatia catena
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.4
0.00 - 0.01
0.01 - 0.03
0.03 - 0.05
0.05 - 0.09
0.09 - 0.15
0.15 - 0.23
0.23 - 0.35

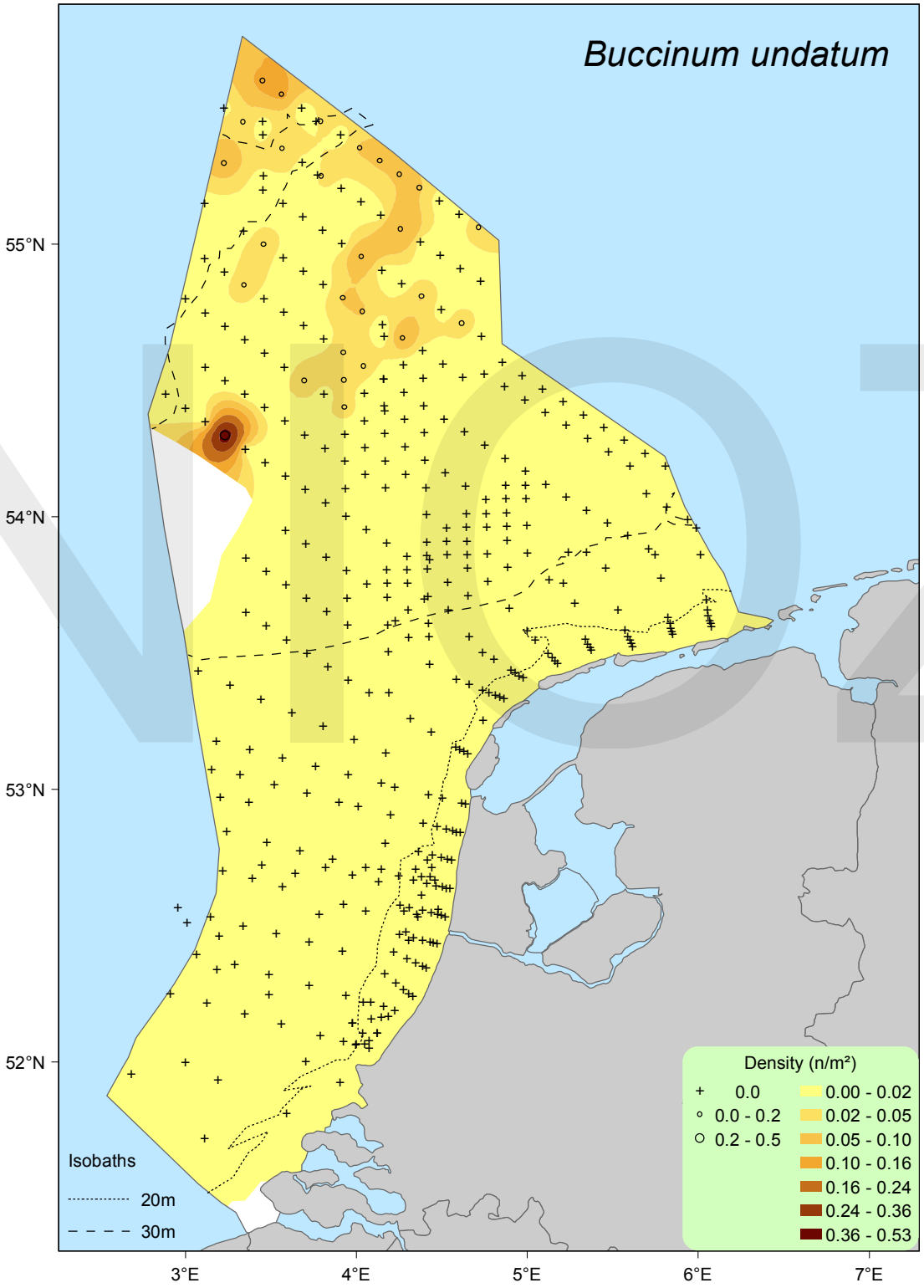

Lunatia catena
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.25
0.00 - 0.00
0.00 - 0.01
0.01 - 0.02
0.02 - 0.04
0.04 - 0.07
0.07 - 0.13
0.13 - 0.25

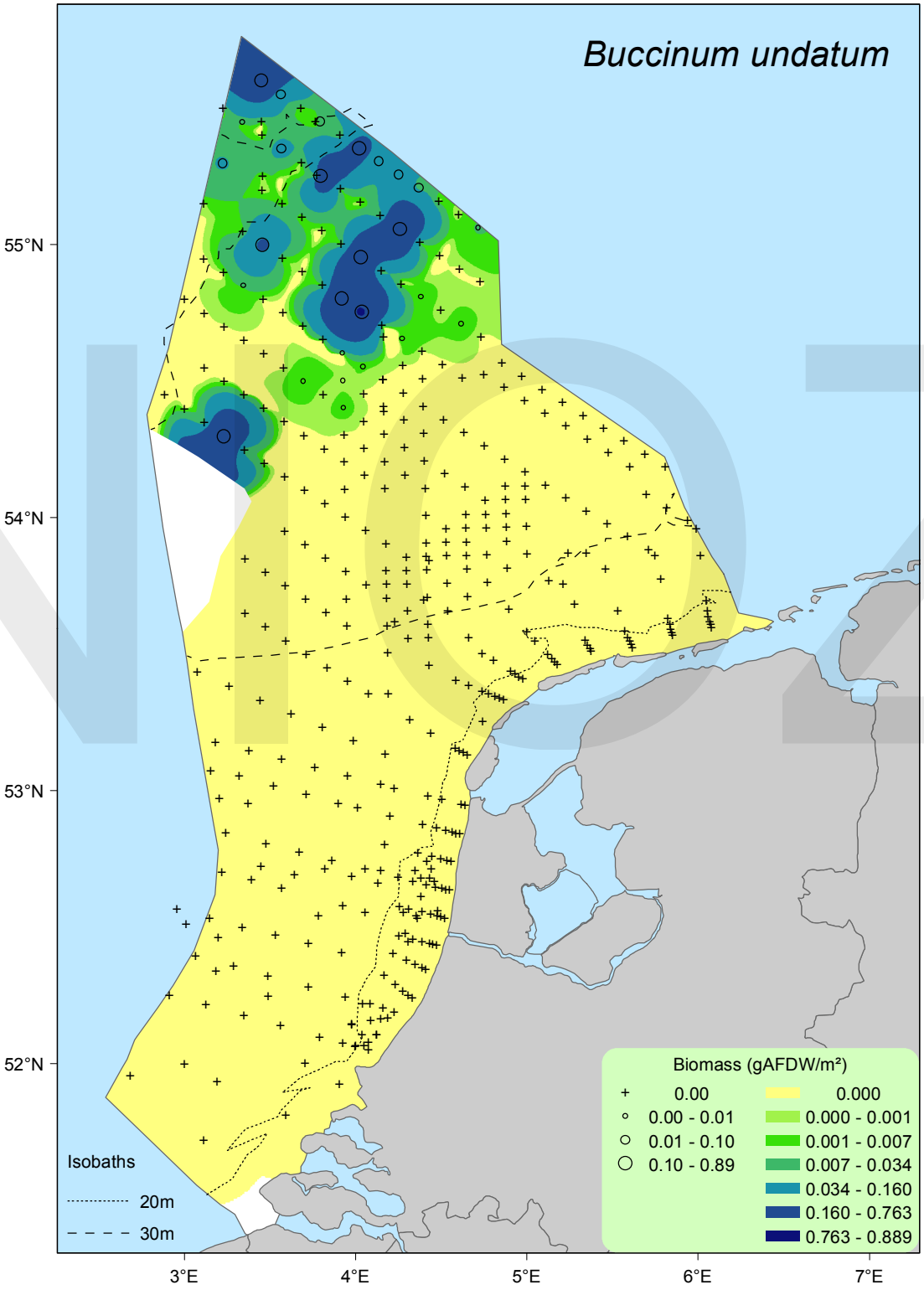

Lunatia pulchella
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 23.2
0.00 - 0.02
0.02 - 0.07
0.07 - 0.24
0.24 - 0.75
0.75 - 2.37
2.37 - 7.42
7.42 - 23.20

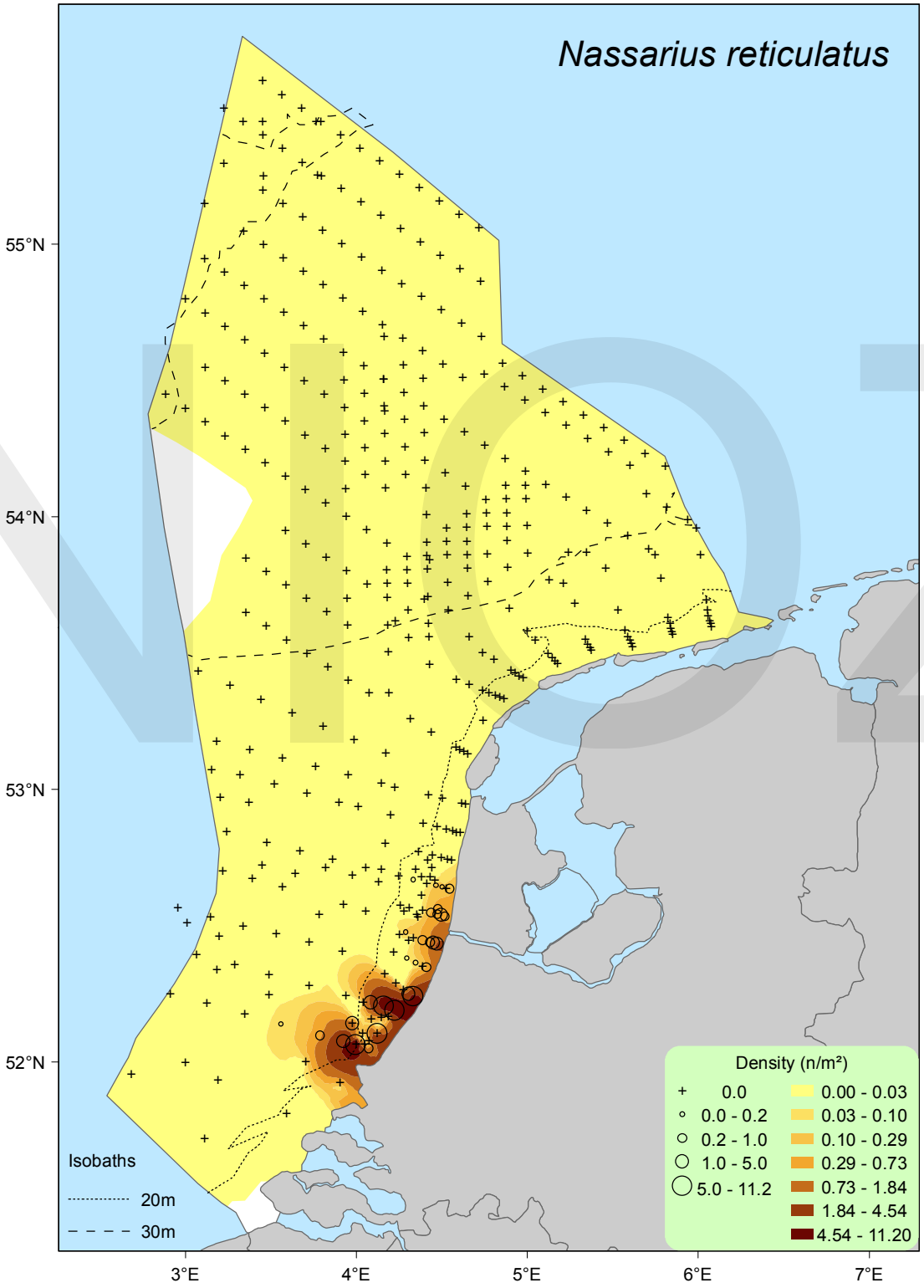

Lunatia pulchella
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.48
0.000
0.000 - 0.001
0.001 - 0.004
0.004 - 0.014
0.014 - 0.046
0.046 - 0.148
0.148 - 0.478

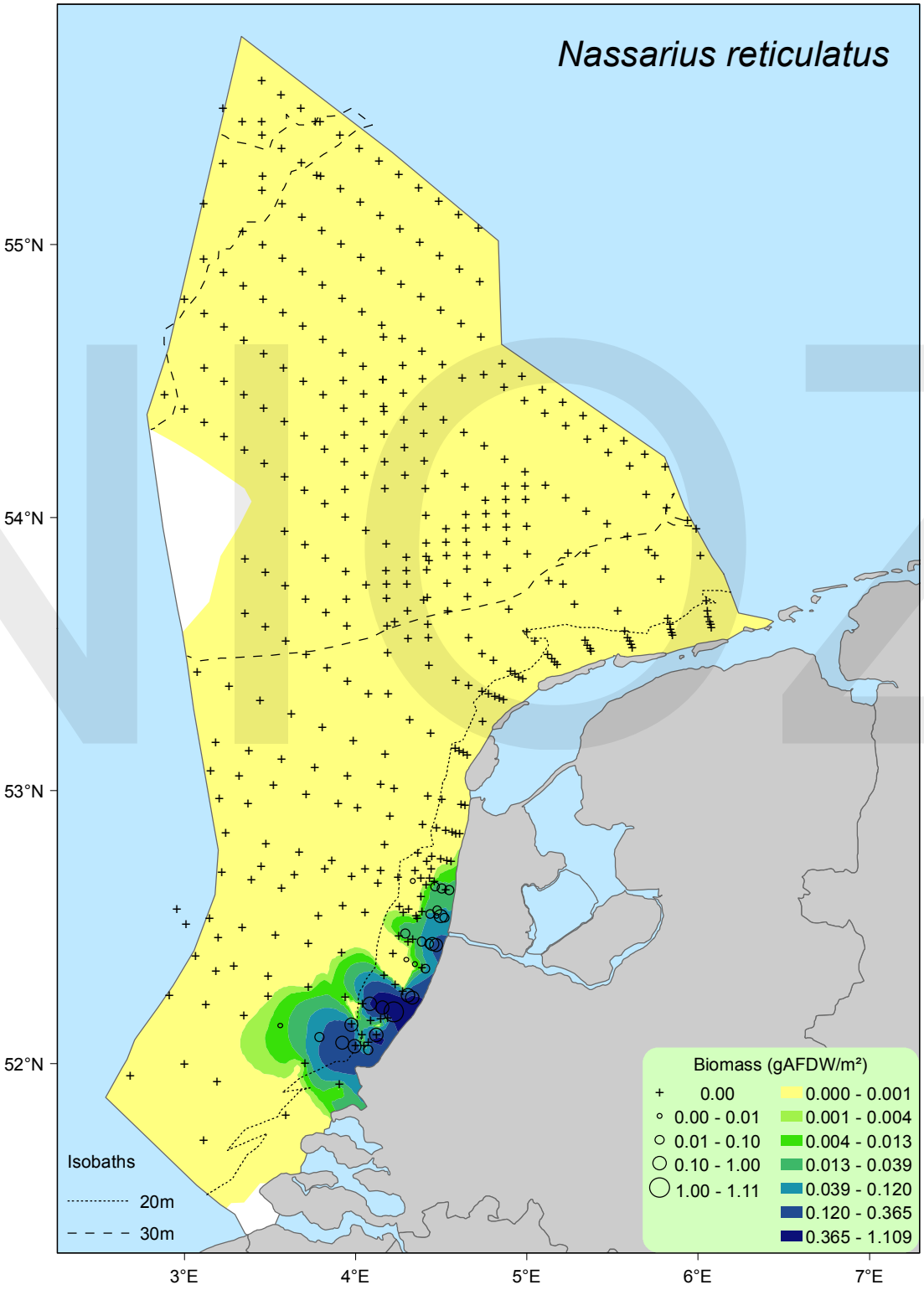

Gastropods
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Epitonium clathrus
0.0 - 0.2
0.2 - 0.4
Neptunea antiqua
0.0 - 0.1
All absent

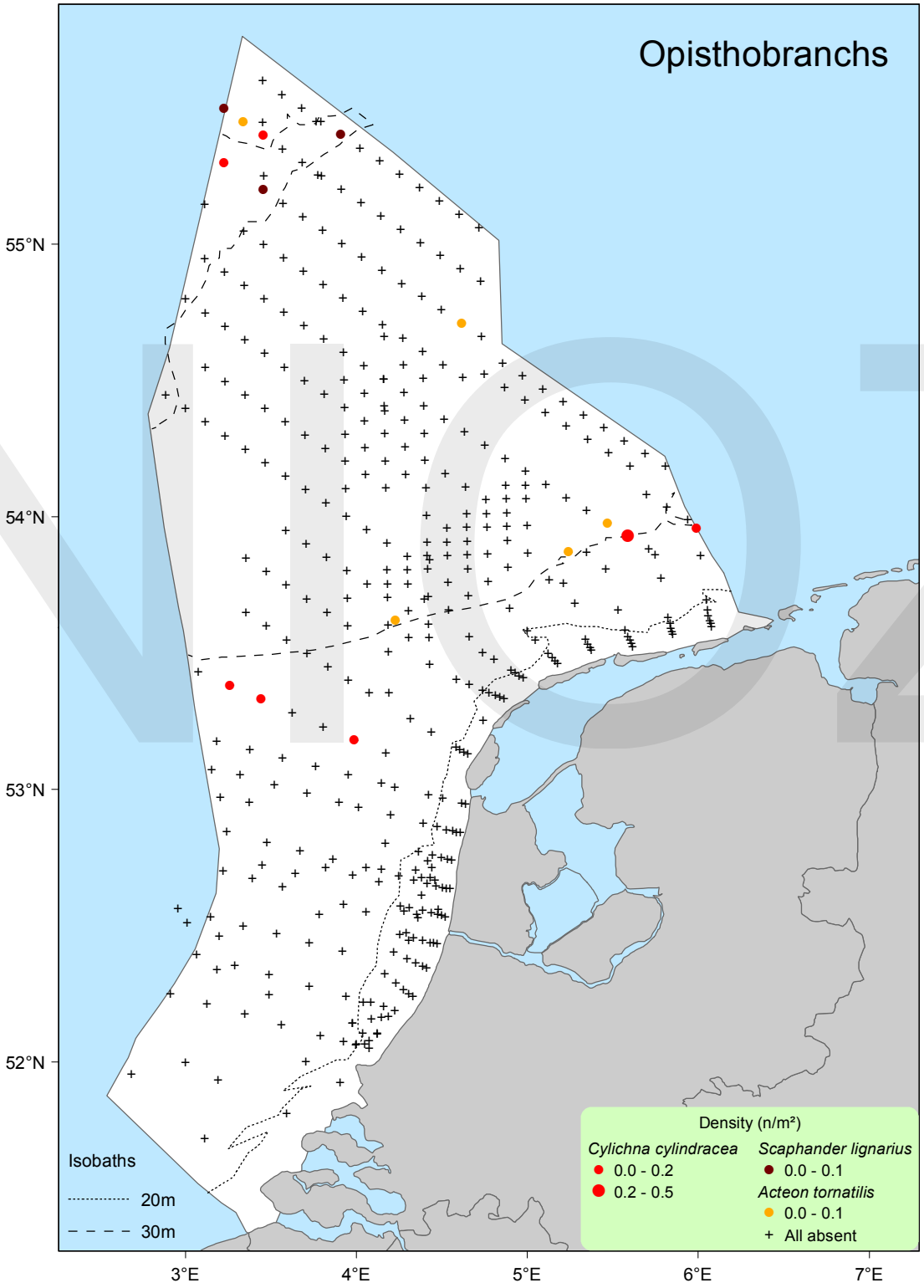

Gastropods
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Neptunea antiqua
0.00 - 0.01
0.01 - 0.10
0.10 - 0.22
Epitonium clathrus
0.00 - 0.01
All absent

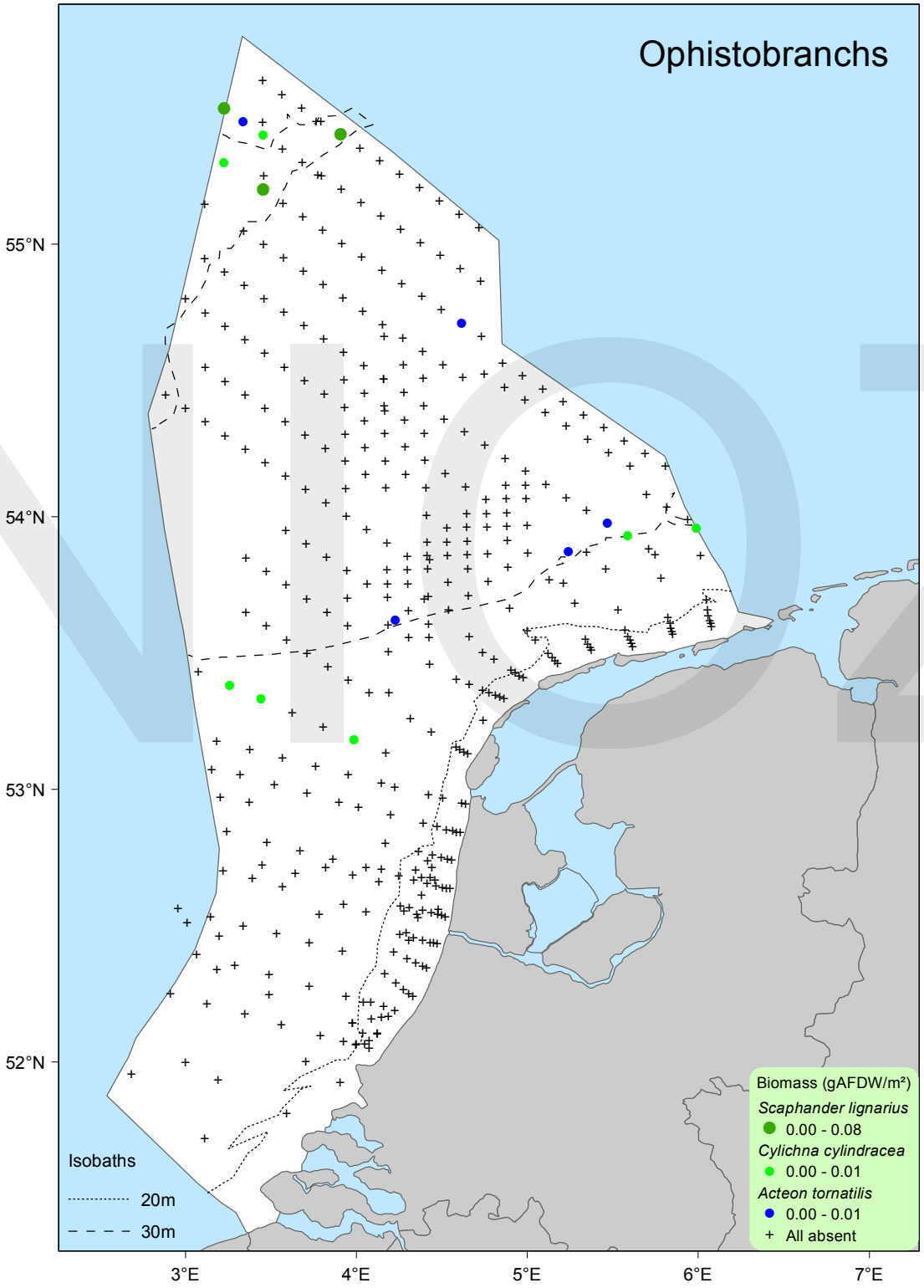

Buccinum undatum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.5
0.00 - 0.02
0.02 - 0.05
0.05 - 0.10
0.10 - 0.16
0.16 - 0.24
0.24 - 0.36
0.36 - 0.53

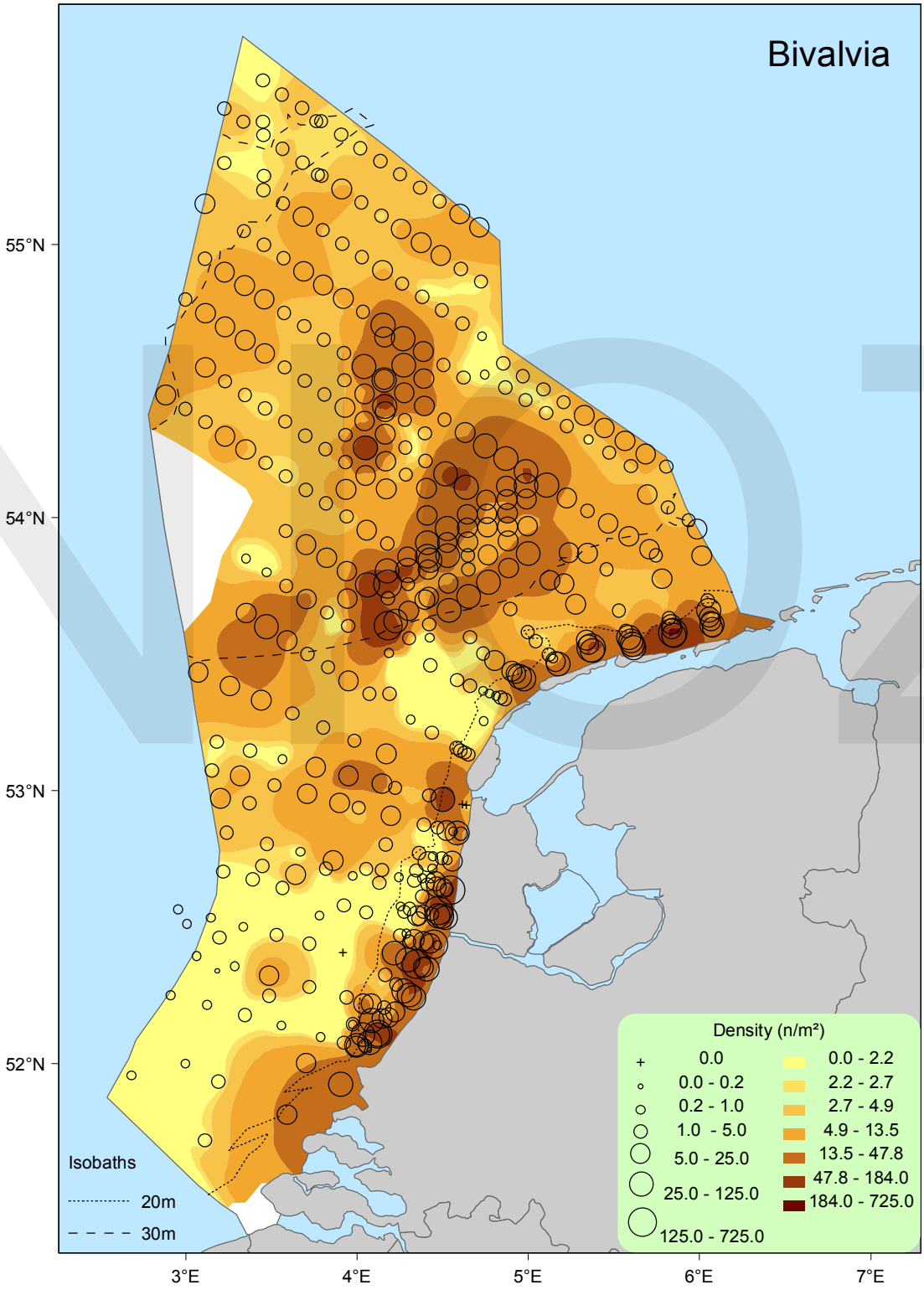

Buccinum undatum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.89
0.000
0.000 - 0.001
0.001 - 0.007
0.007 - 0.034
0.034 - 0.160
0.160 - 0.763
0.763 - 0.889

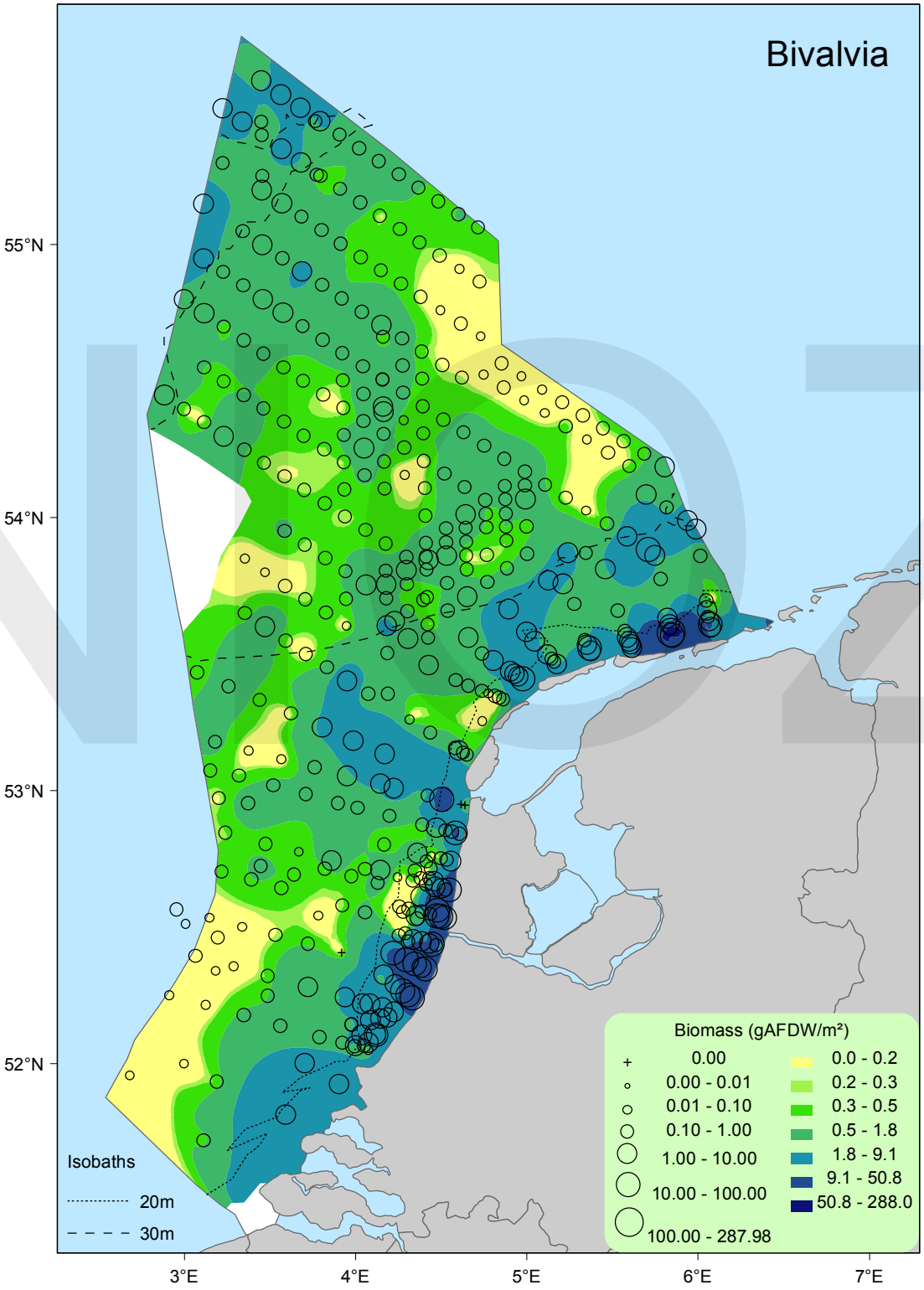

Nassarius reticulatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 11.2
0.00 - 0.03
0.03 - 0.10
0.10 - 0.29
0.29 - 0.73
0.73 - 1.84
1.84 - 4.54
4.54 - 11.20

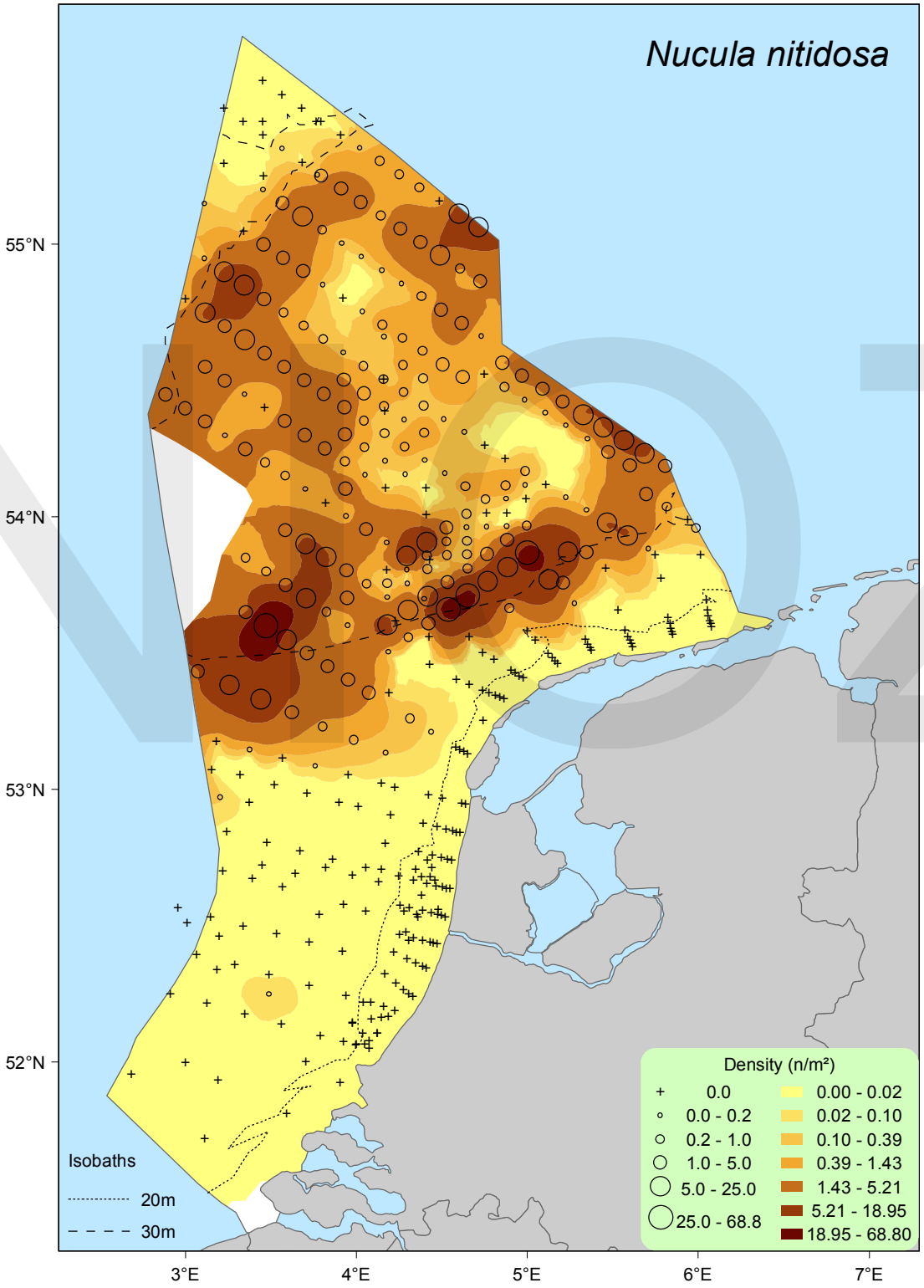

Nassarius reticulatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.11
0.000 - 0.001
0.001 - 0.004
0.004 - 0.013
0.013 - 0.039
0.039 - 0.120
0.120 - 0.365
0.365 - 1.109

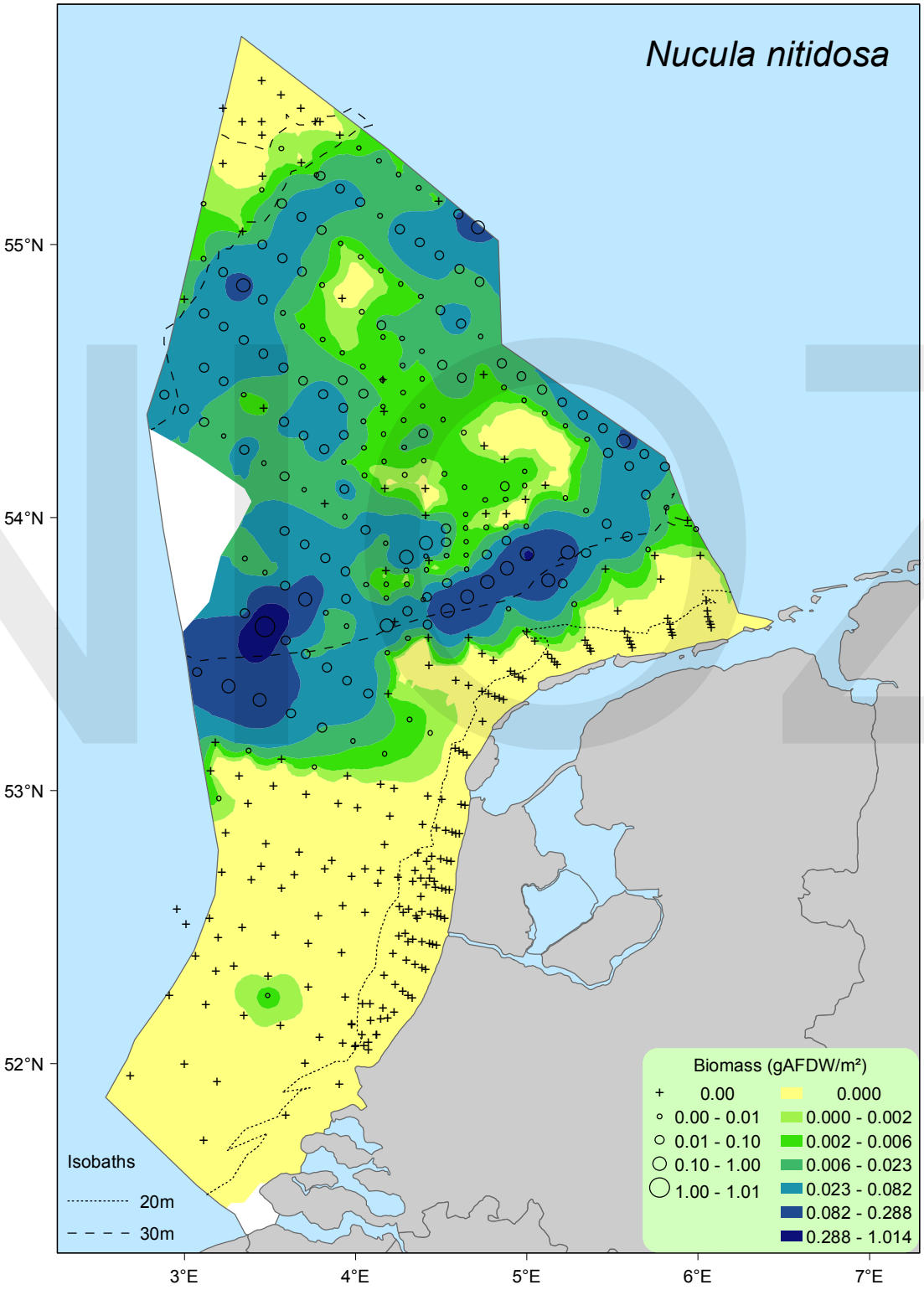

Opisthobranchs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Cylichna cylindracea
0.0 - 0.2
0.2 - 0.5
Scaphander lignarius
0.0 - 0.1
Acteon tornatilis
0.0 - 0.1
All absent

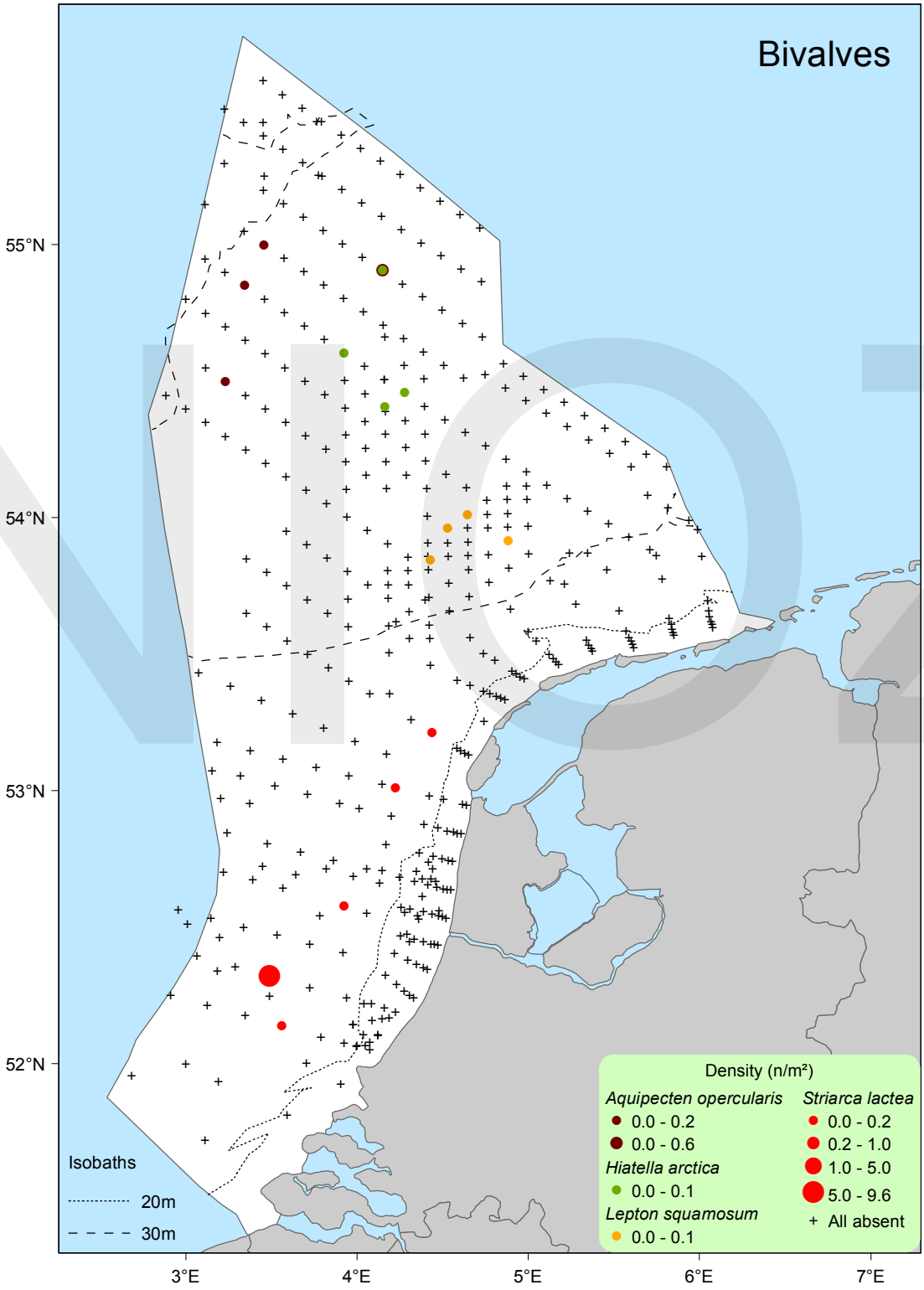

Ophistobranchs
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Scaphander lignarius
0.00 - 0.08
Cylichna cylindracea
0.00 - 0.01
Acteon tornatilis
0.00 - 0.01
All absent

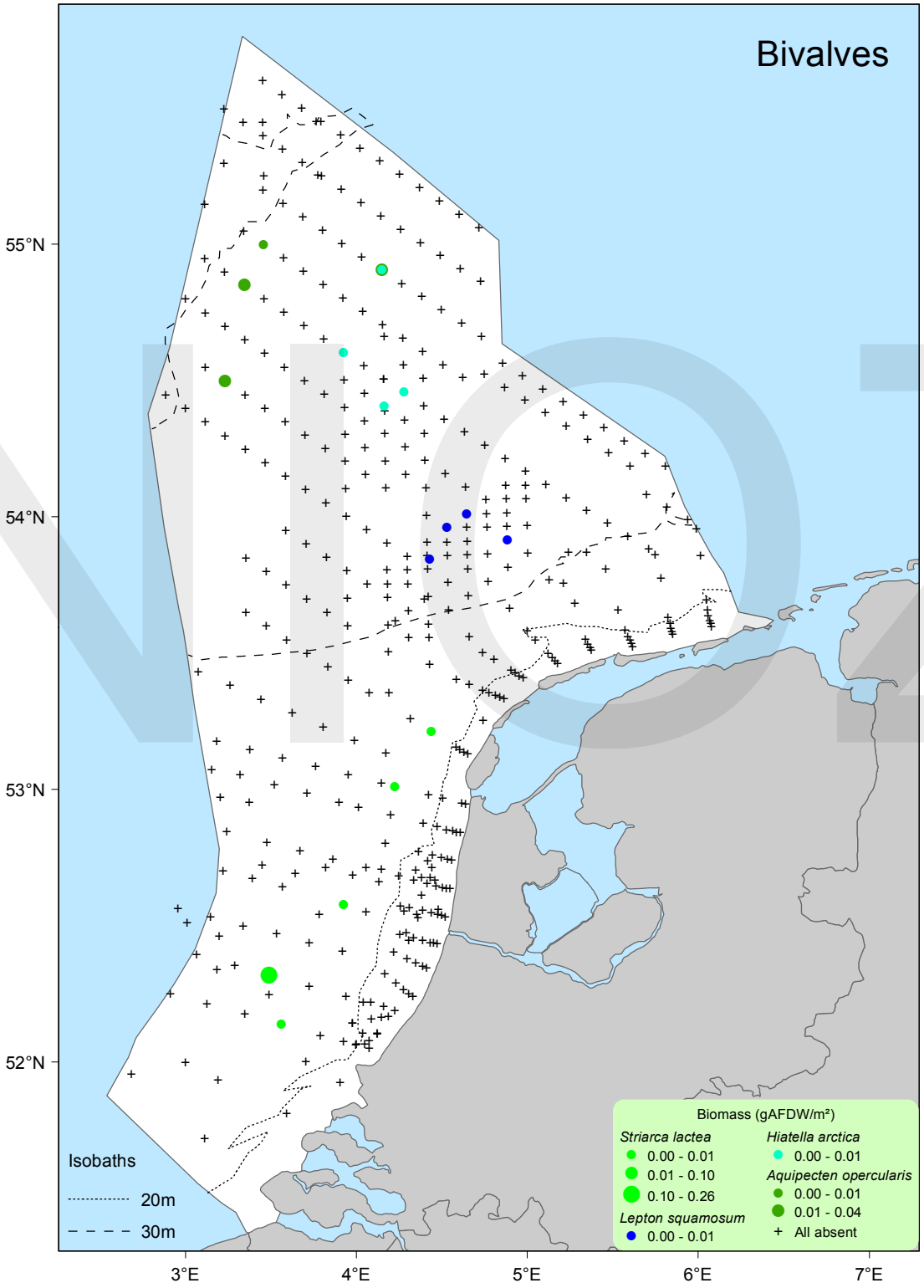

Bivalvia
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 725.0
0.0 - 2.2
2.2 - 2.7
2.7 - 4.9
4.9 - 13.5
13.5 - 47.8
47.8 - 184.0
184.0 - 725.0

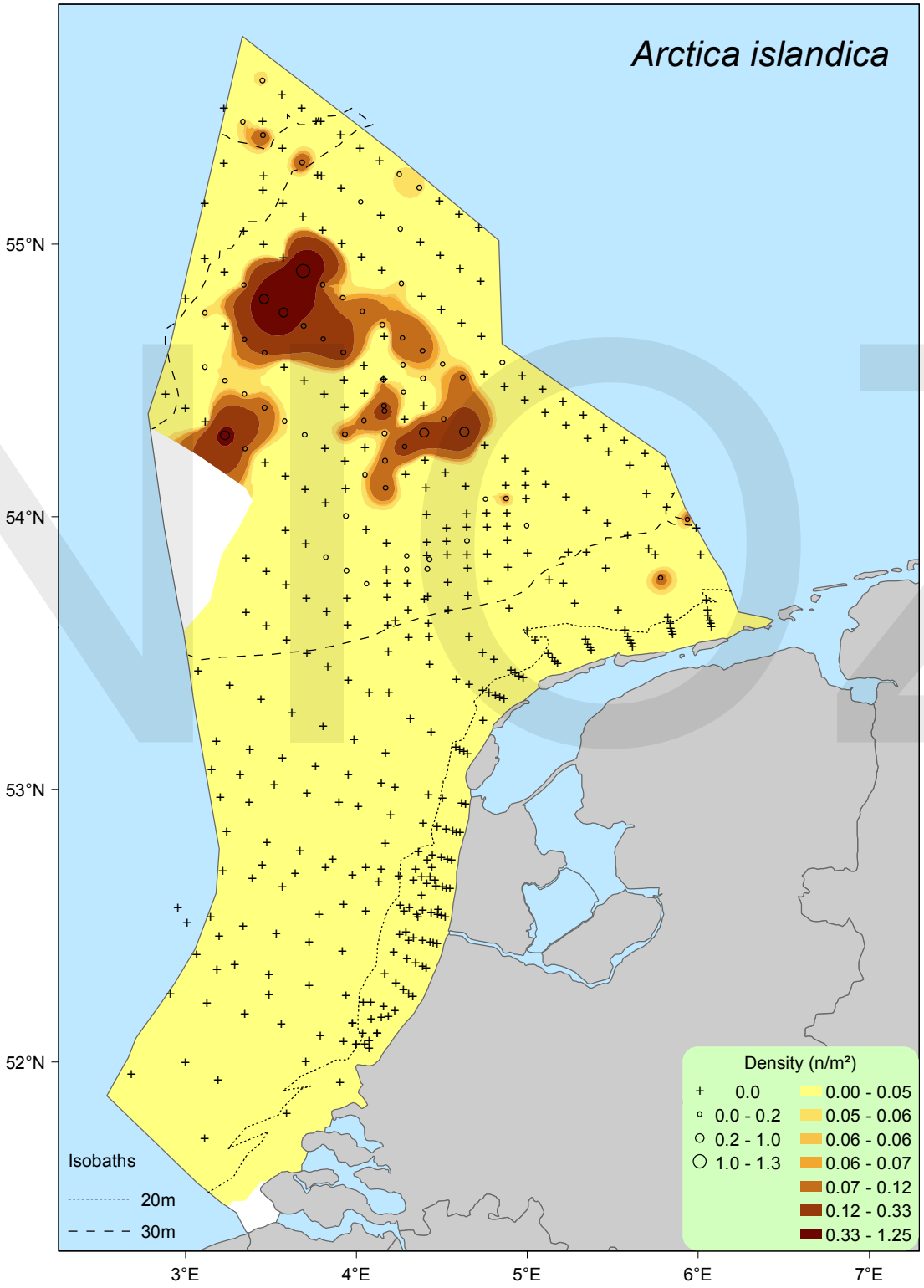

Bivalvia
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 100.00
100.00 - 287.98
0.0 - 0.2
0.2 - 0.3
0.3 - 0.5
0.5 - 1.8
1.8 - 9.1
9.1 - 50.8
50.8 - 288.0

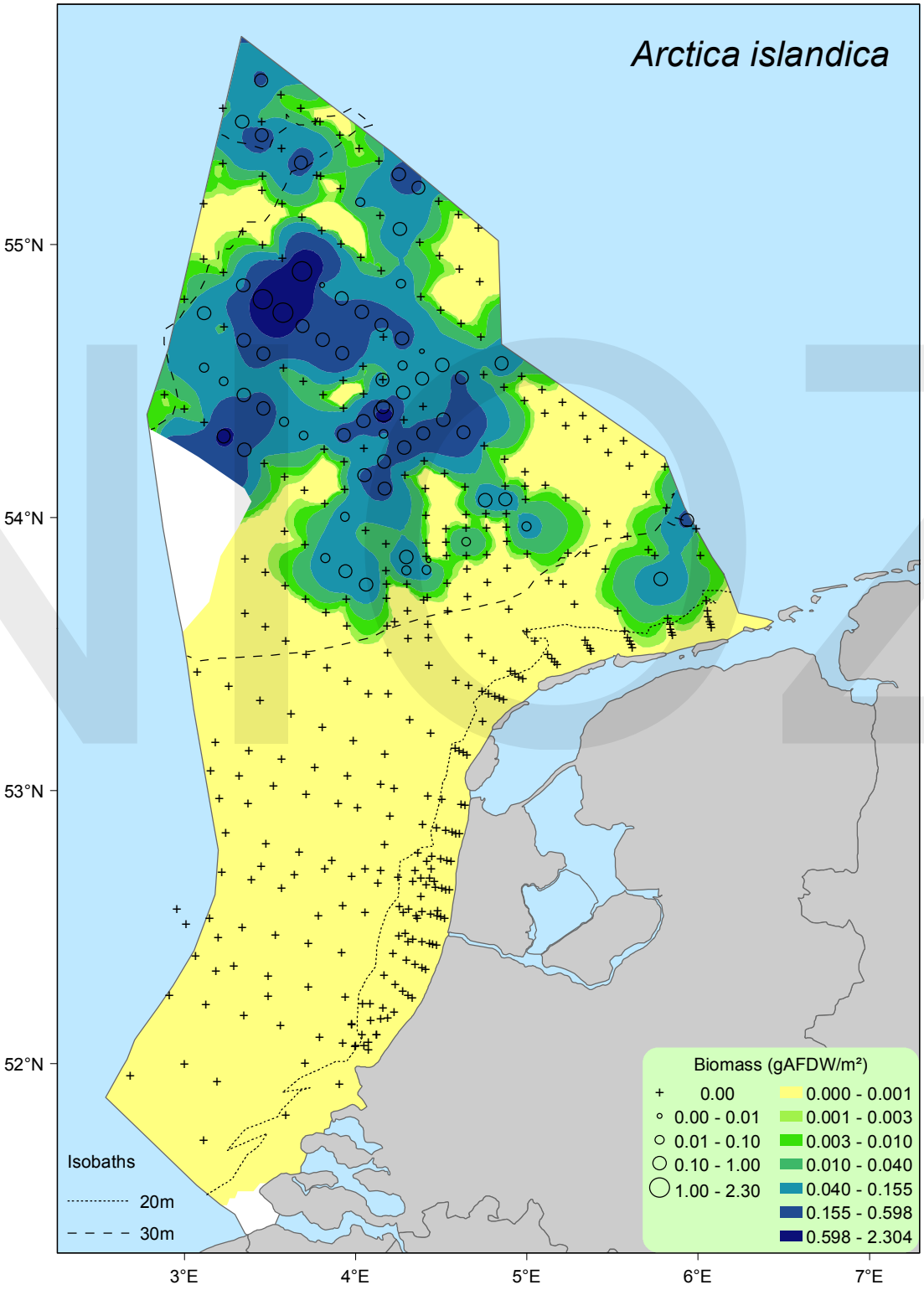

Nucula nitidosa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 68.8
0.00 - 0.02
0.02 - 0.10
0.10 - 0.39
0.39 - 1.43
1.43 - 5.21
5.21 - 18.95
18.95 - 68.80

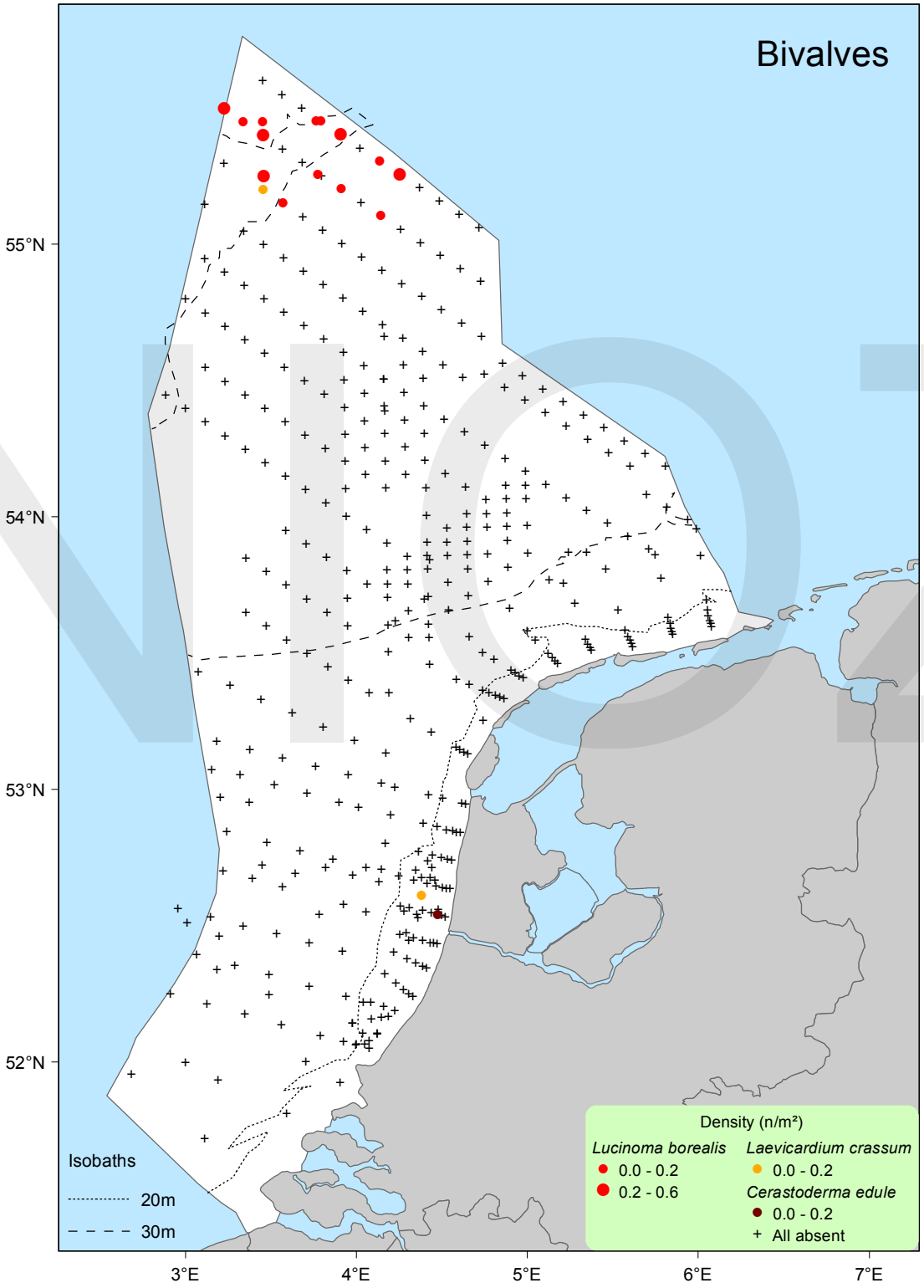

Nucula nitidosa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.01
0.000
0.000 - 0.002
0.002 - 0.006
0.006 - 0.023
0.023 - 0.082
0.082 - 0.288
0.288 - 1.014

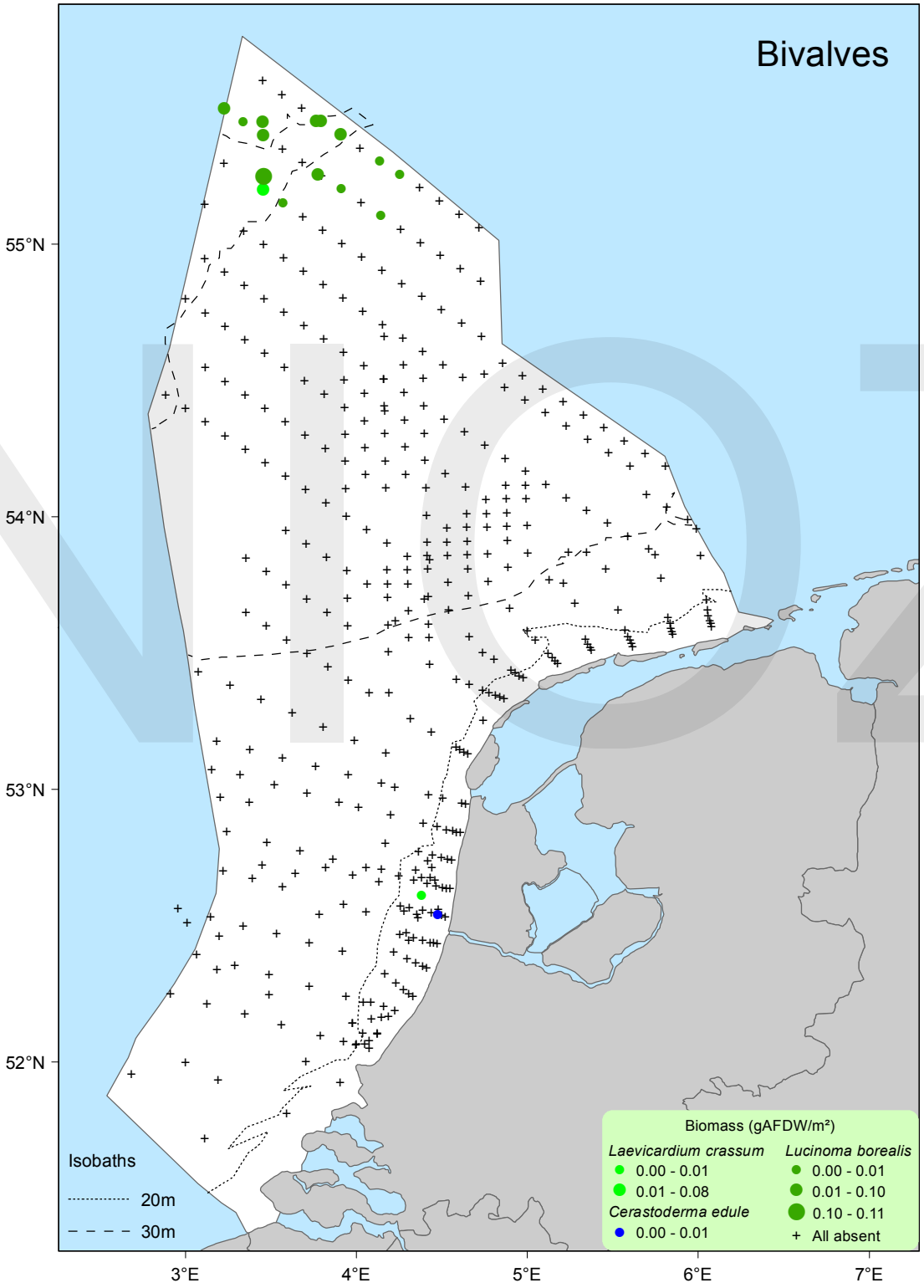

Bivalves
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Aquipecten opercularis
0.0 - 0.2
0.0 - 0.6
Hiatella arctica
0.0 - 0.1
Lepton squamosum
0.0 - 0.1
Striarca lactea
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 9.6
+ All absent

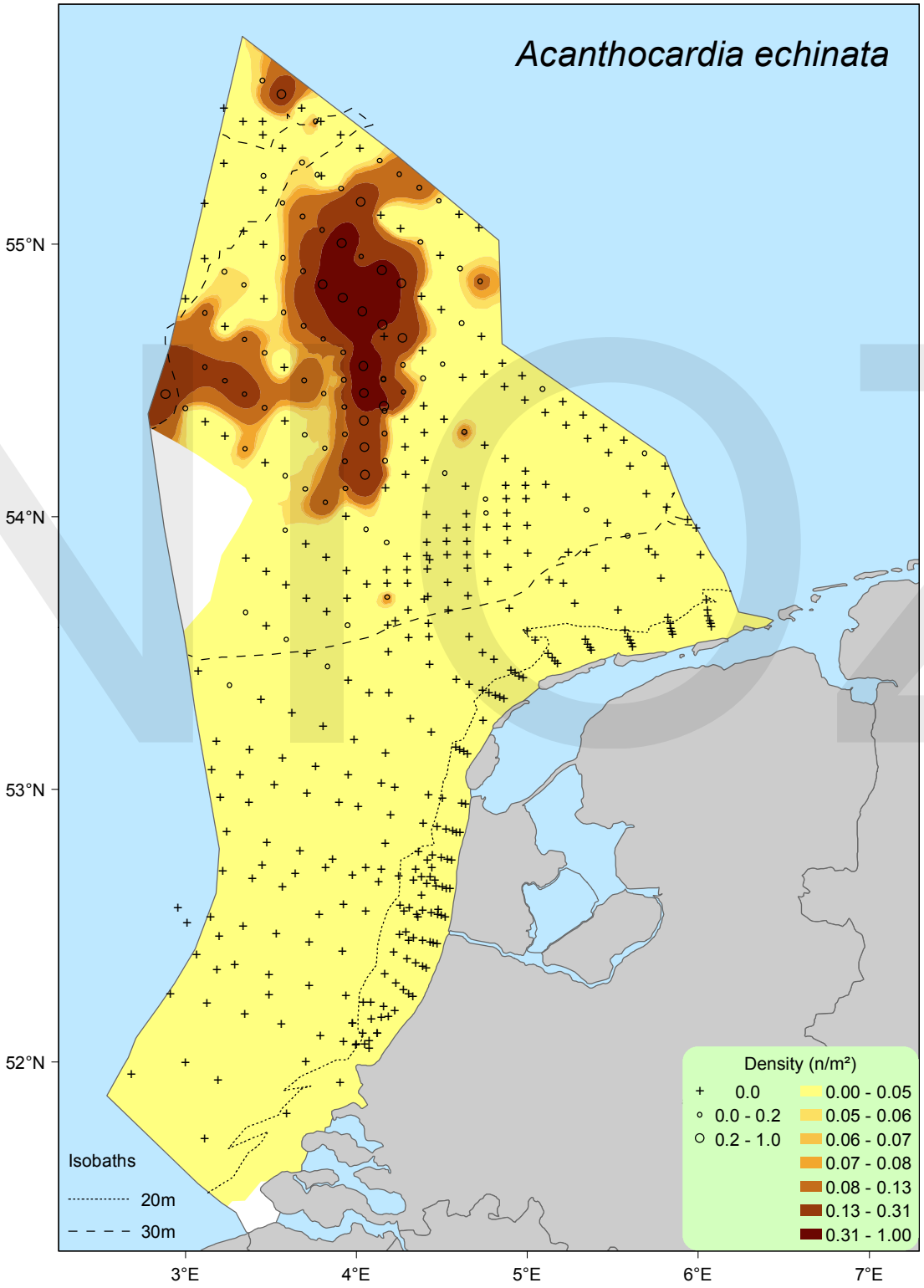

Bivalves
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Striarca lactea
0.00 - 0.01
0.01 - 0.10
0.10 - 0.26
Lepton squamosum
0.00 - 0.01
Hiatella arctica
0.00 - 0.01
Aquipecten opercularis
0.00 - 0.01
0.01 - 0.04
All absent

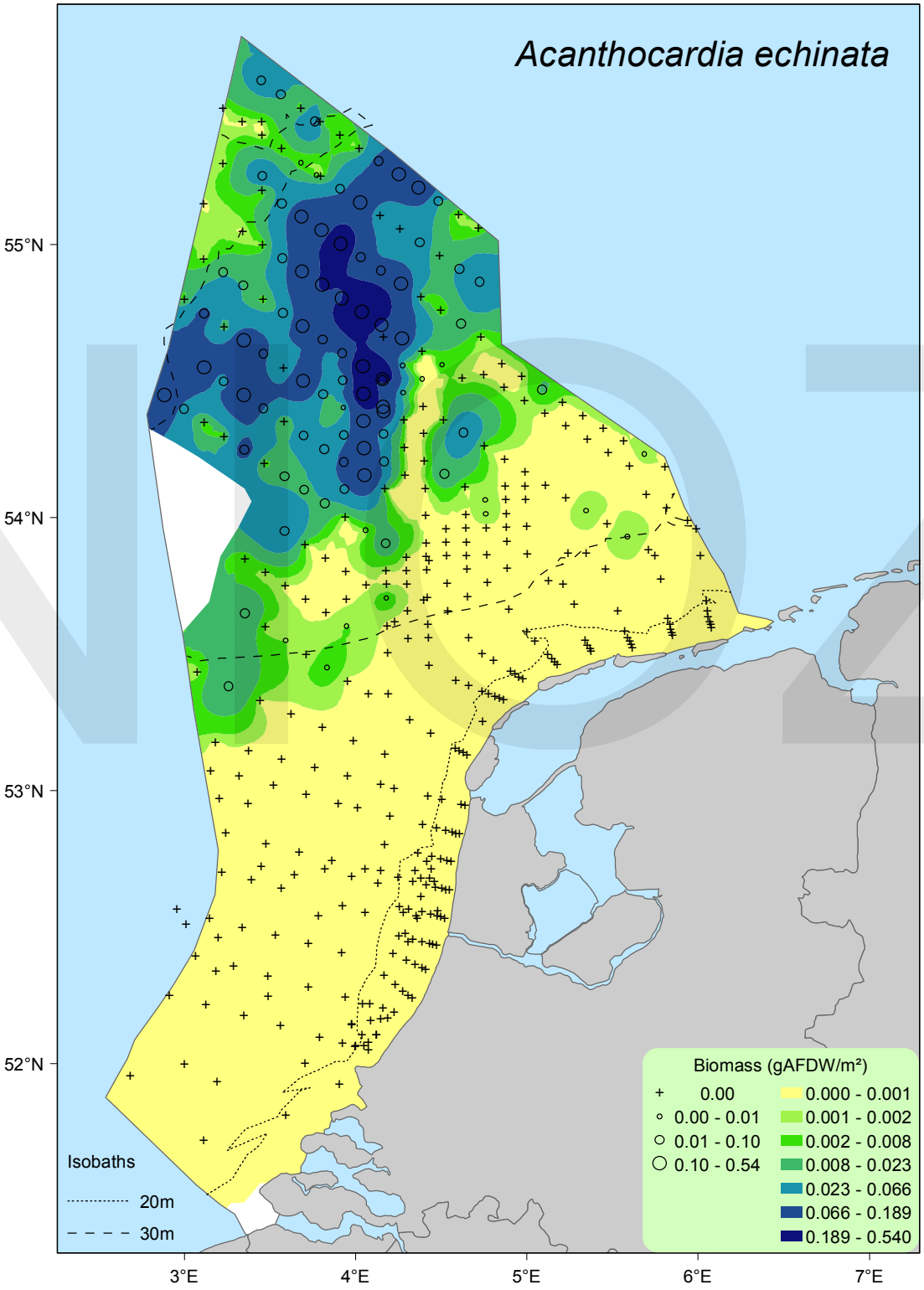

Arctica islandica
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 1.3
0.00 - 0.05
0.05 - 0.06
0.06 - 0.06
0.06 - 0.07
0.07 - 0.12
0.12 - 0.33
0.33 - 1.25

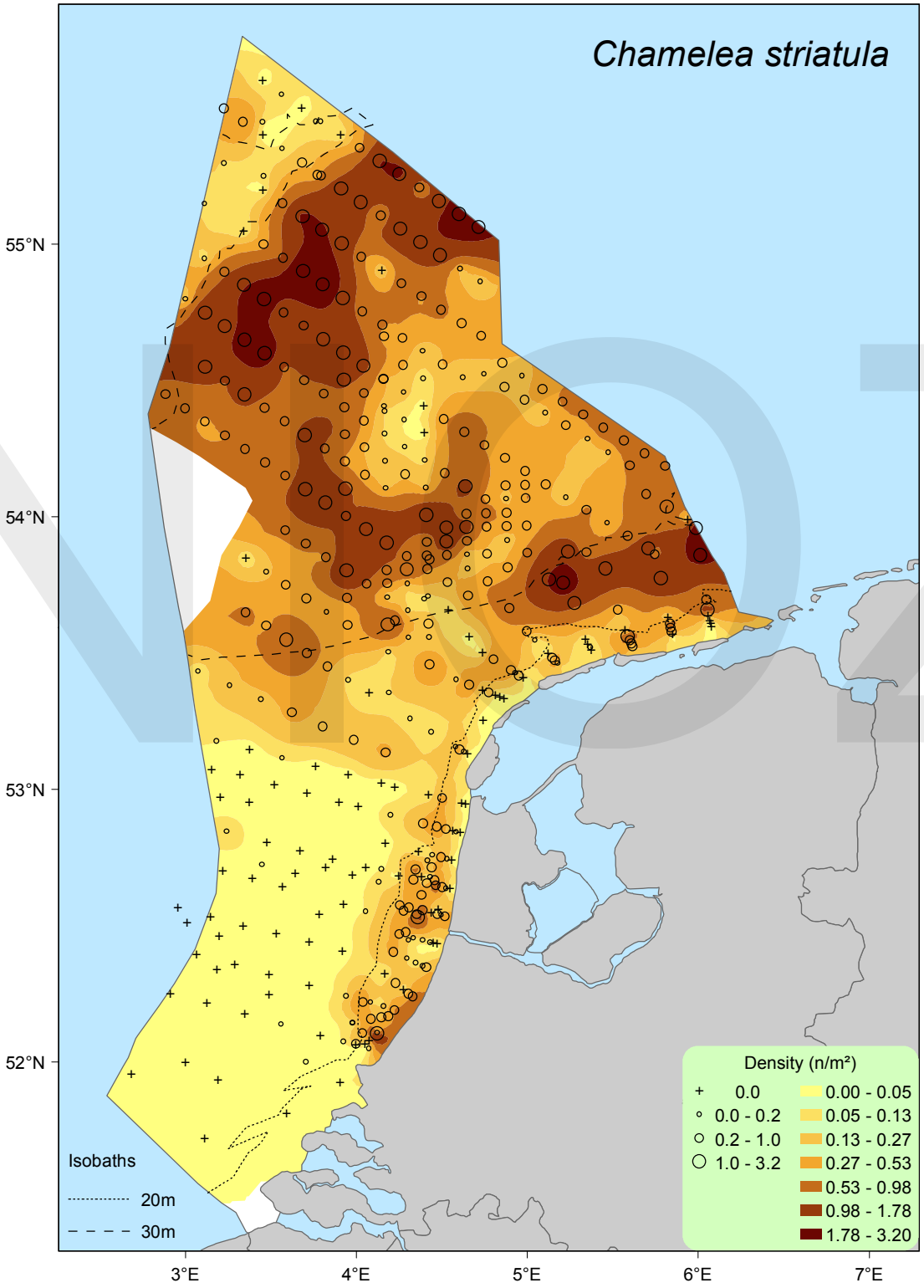

Arctica islandica
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 2.30
0.000 - 0.001
0.001 - 0.003
0.003 - 0.010
0.010 - 0.040
0.040 - 0.155
0.155 - 0.598
0.598 - 2.304

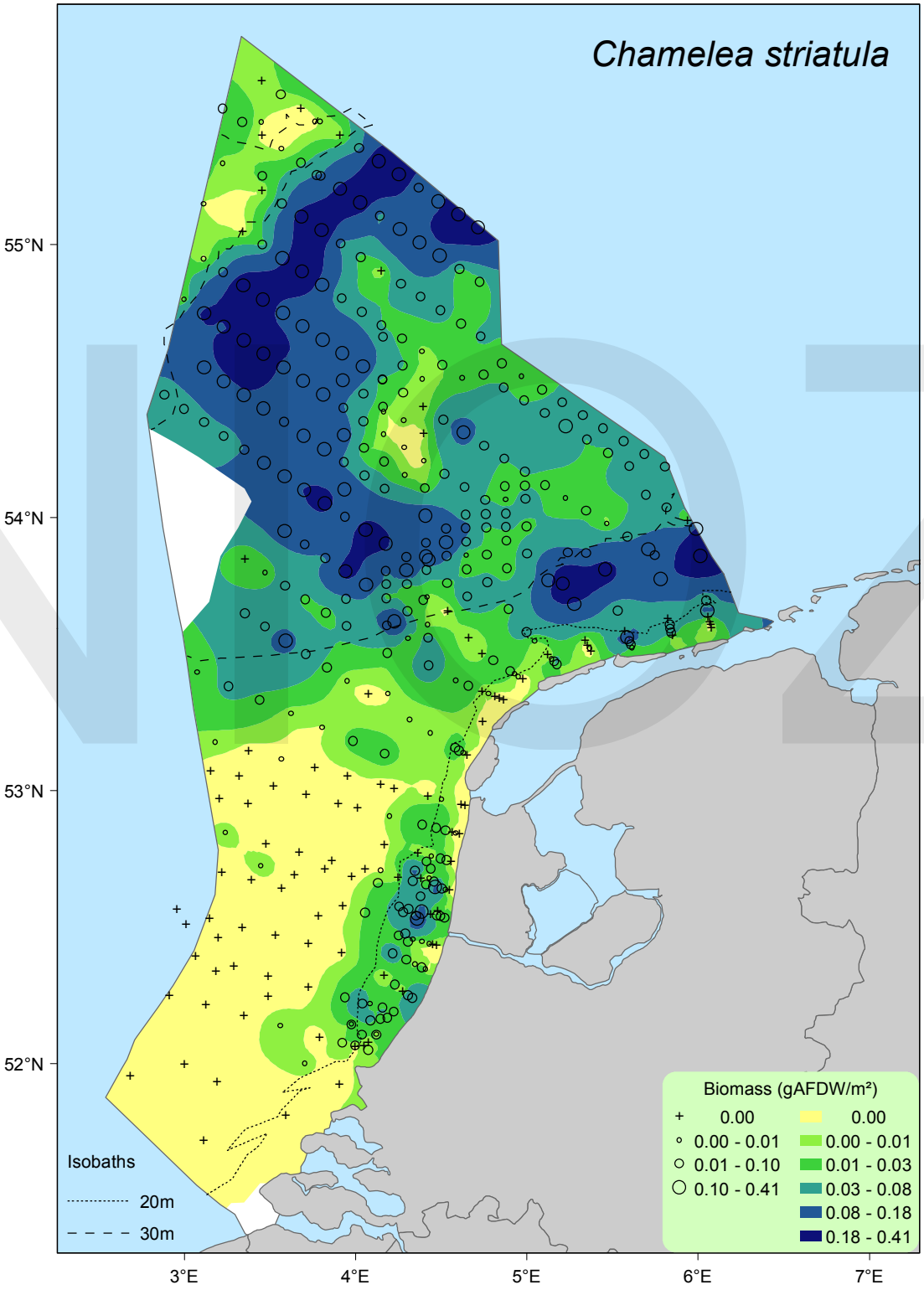

Bivalves
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Lucinoma borealis
0.0 - 0.2
0.2 - 0.6
Laevicardium crassum
0.0 - 0.2
Cerastoderma edule
0.0 - 0.2
All absent

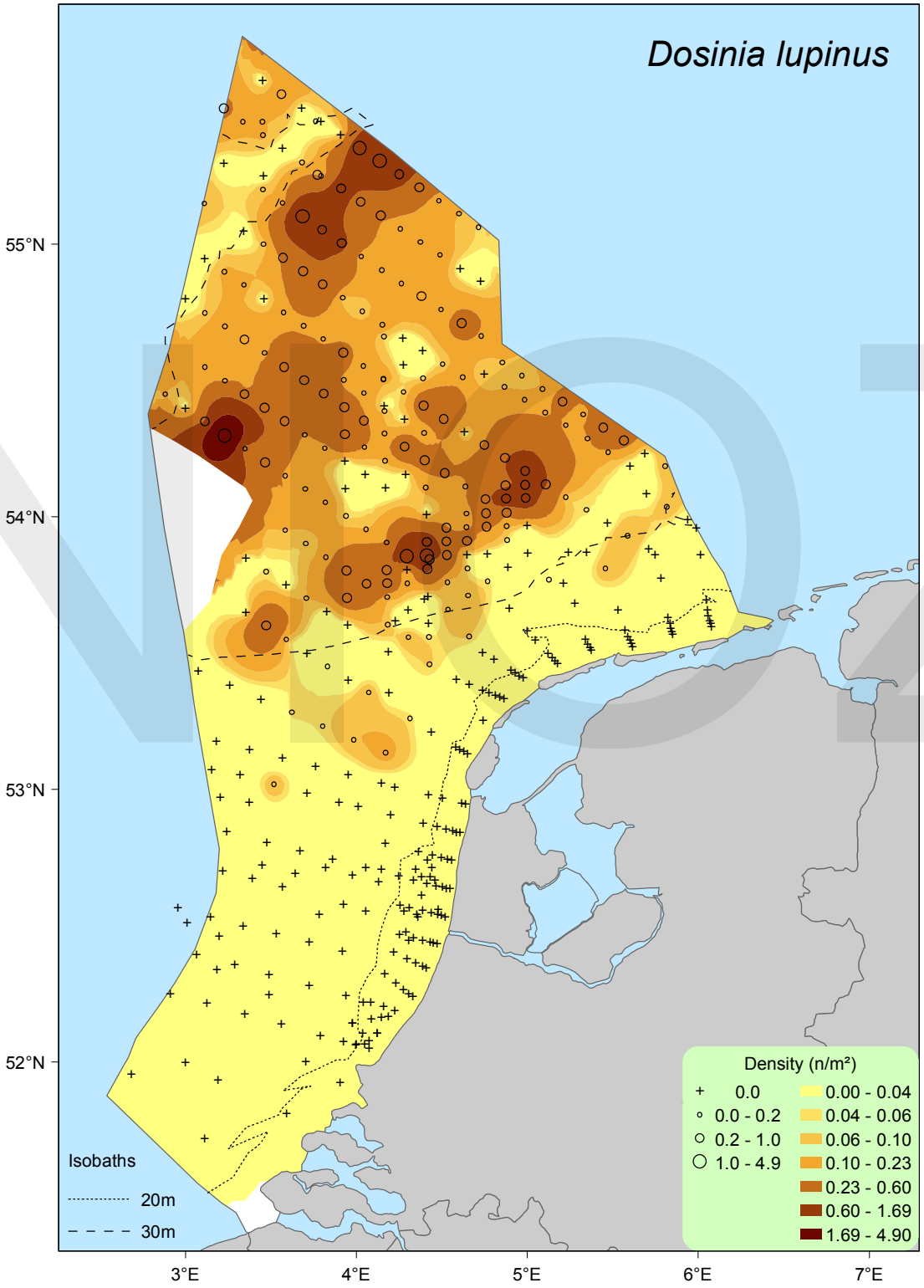

Bivalves
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Laevicardium crassum
0.00 - 0.01
0.01 - 0.08
Cerastoderma edule
0.00 - 0.01
Lucinoma borealis
0.00 - 0.01
0.01 - 0.10
0.10 - 0.11
+ All absent

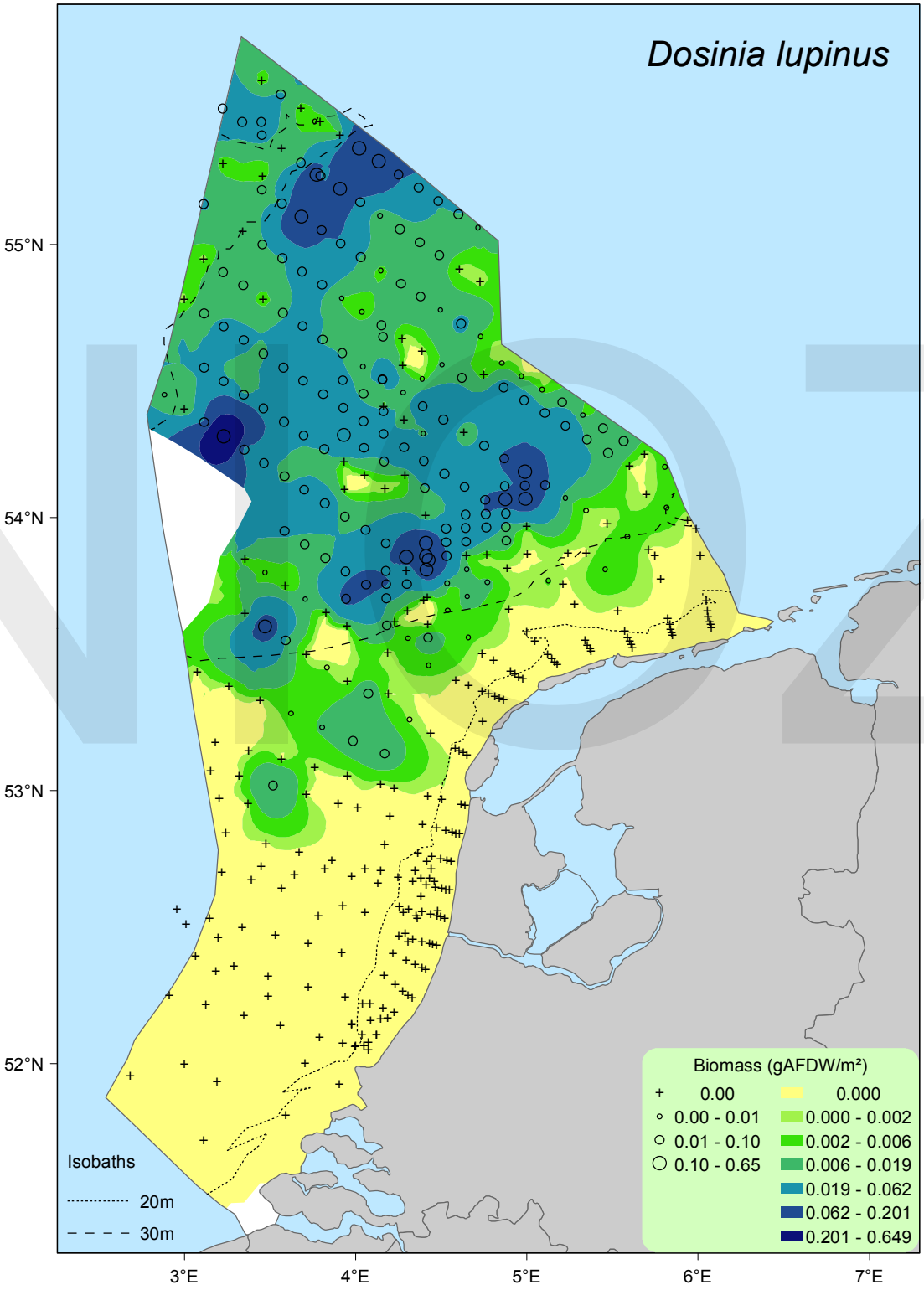

Acanthocardia echinata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
0.00 - 0.05
0.05 - 0.06
0.06 - 0.07
0.07 - 0.08
0.08 - 0.13
0.13 - 0.31
0.31 - 1.00

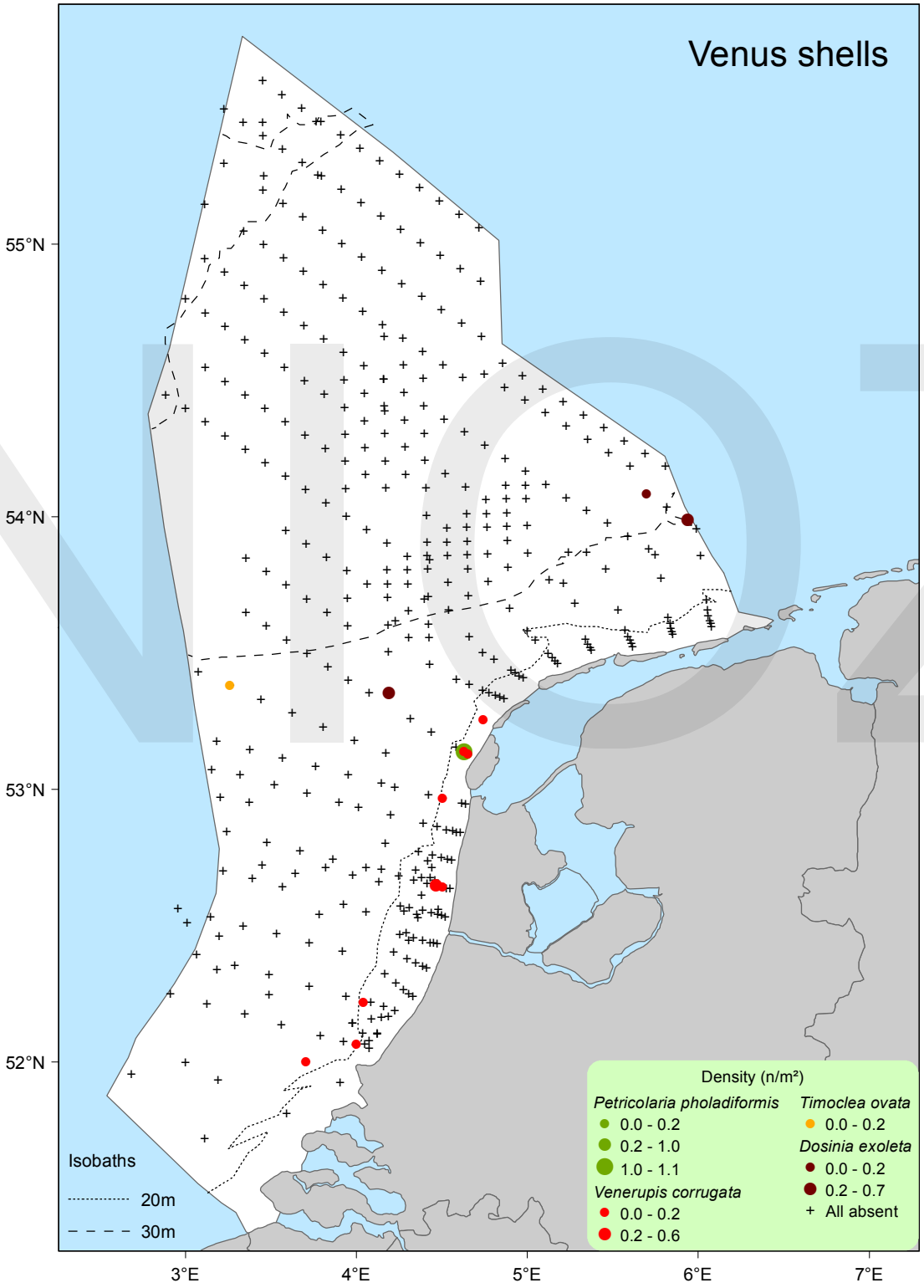

Acanthocardia echinata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.54
0.000 - 0.001
0.001 - 0.002
0.002 - 0.008
0.008 - 0.023
0.023 - 0.066
0.066 - 0.189
0.189 - 0.540

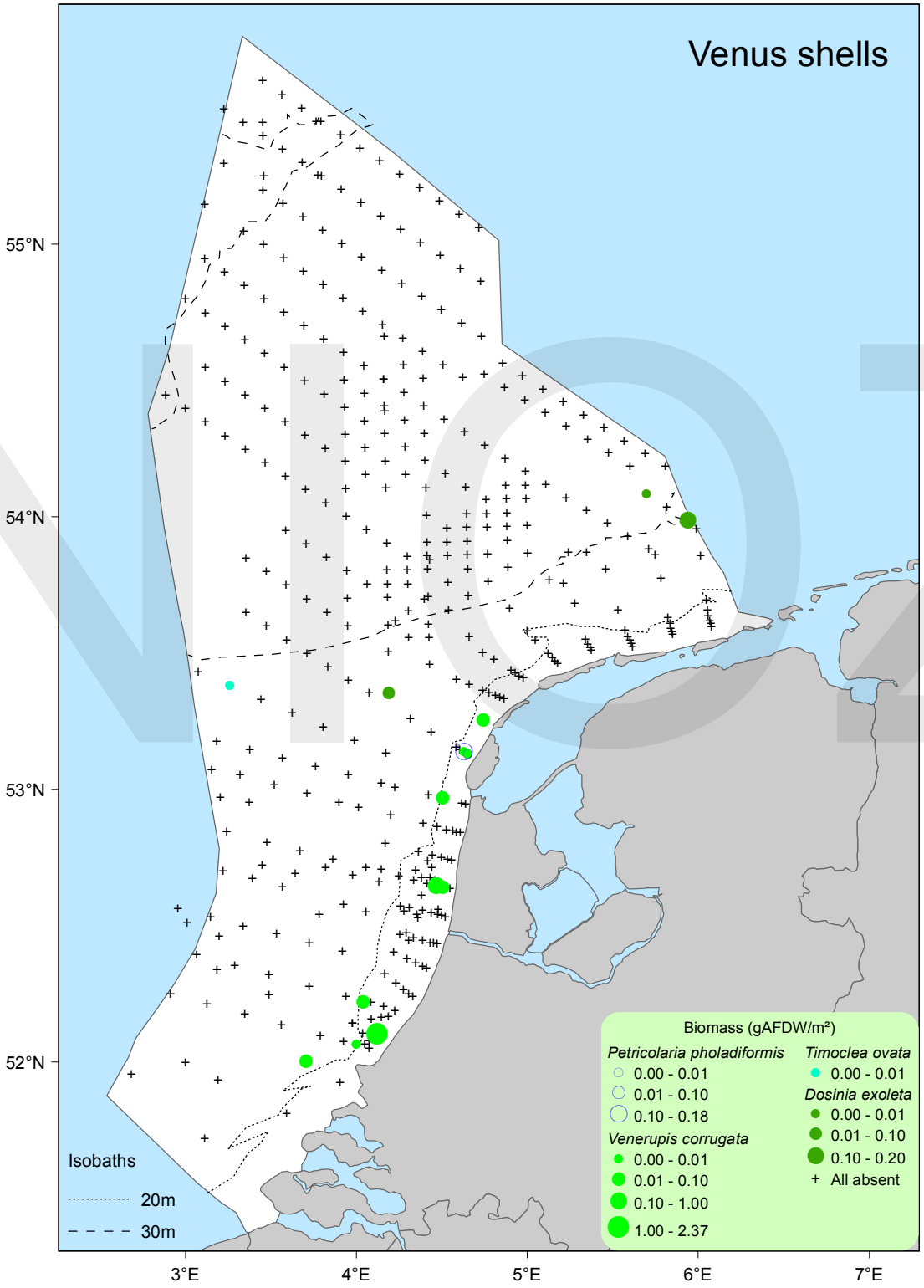

Chamelea striatula
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 3.2
0.00 - 0.05
0.05 - 0.13
0.13 - 0.27
0.27 - 0.53
0.53 - 0.98
0.98 - 1.78
1.78 - 3.20

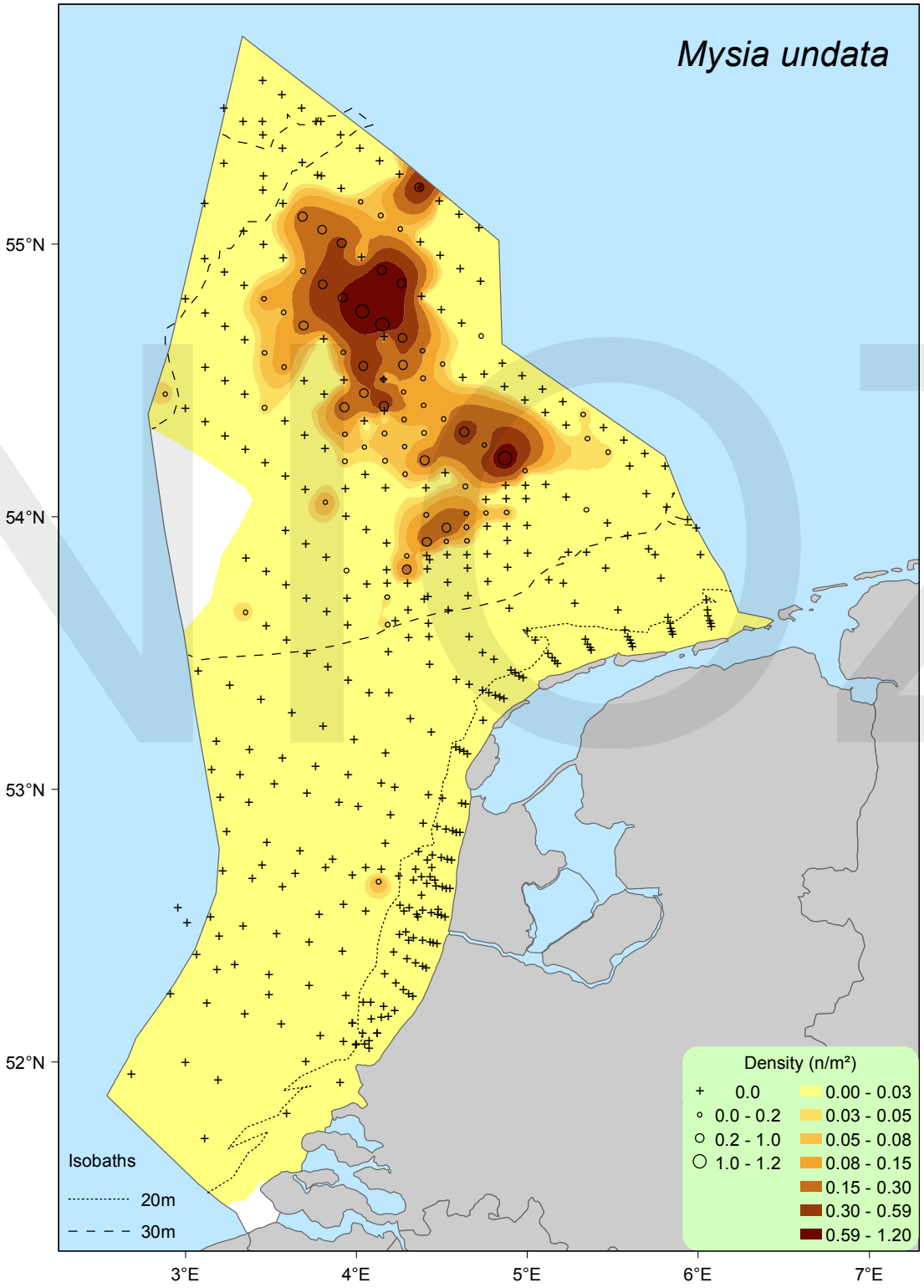

Chamelea striatula
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.41
0.00
0.00 - 0.01
0.01 - 0.03
0.03 - 0.08
0.08 - 0.18
0.18 - 0.41

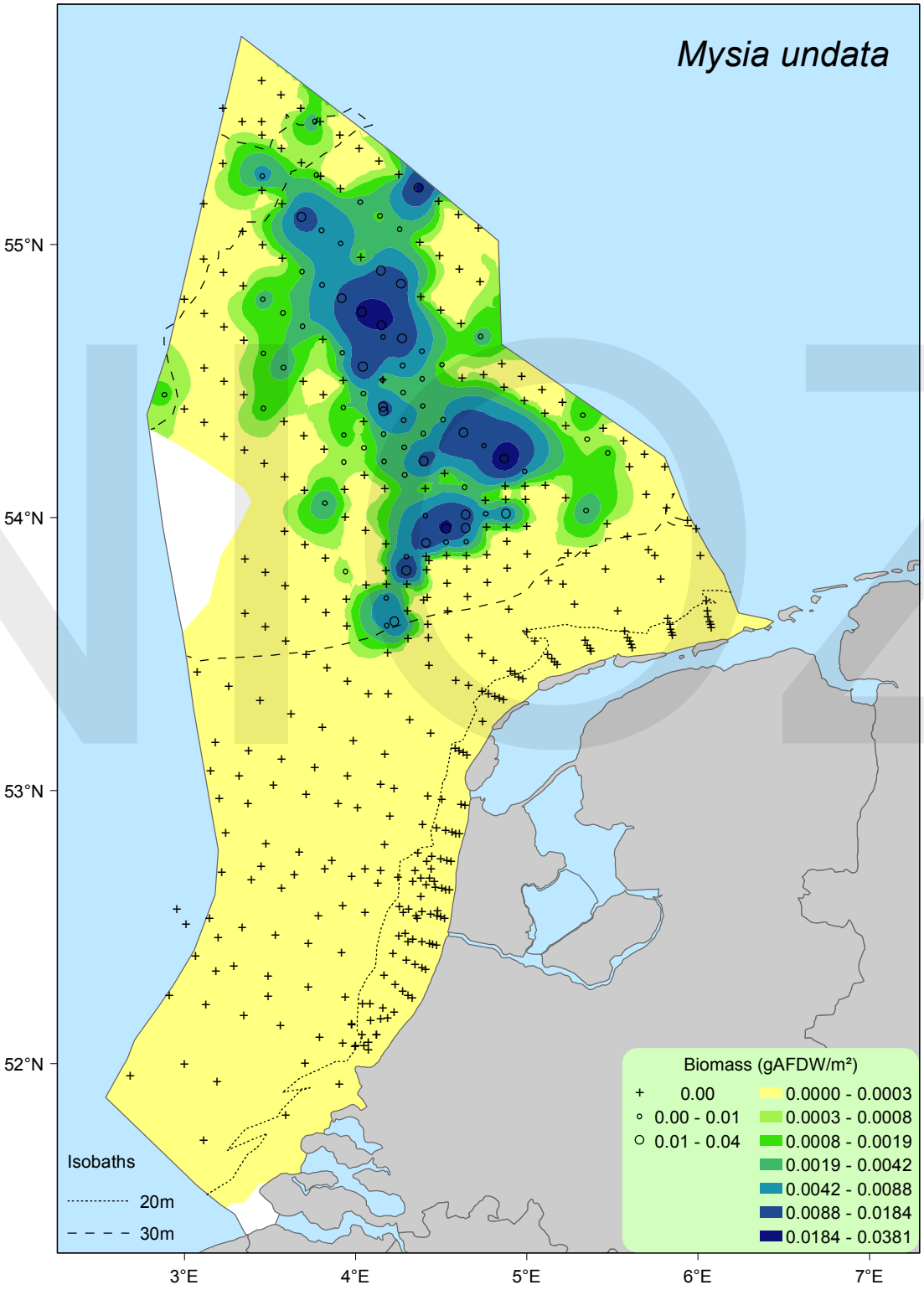

Dosinia lupinus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 4.9
0.00 - 0.04
0.04 - 0.06
0.06 - 0.10
0.10 - 0.23
0.23 - 0.60
0.60 - 1.69
1.69 - 4.90

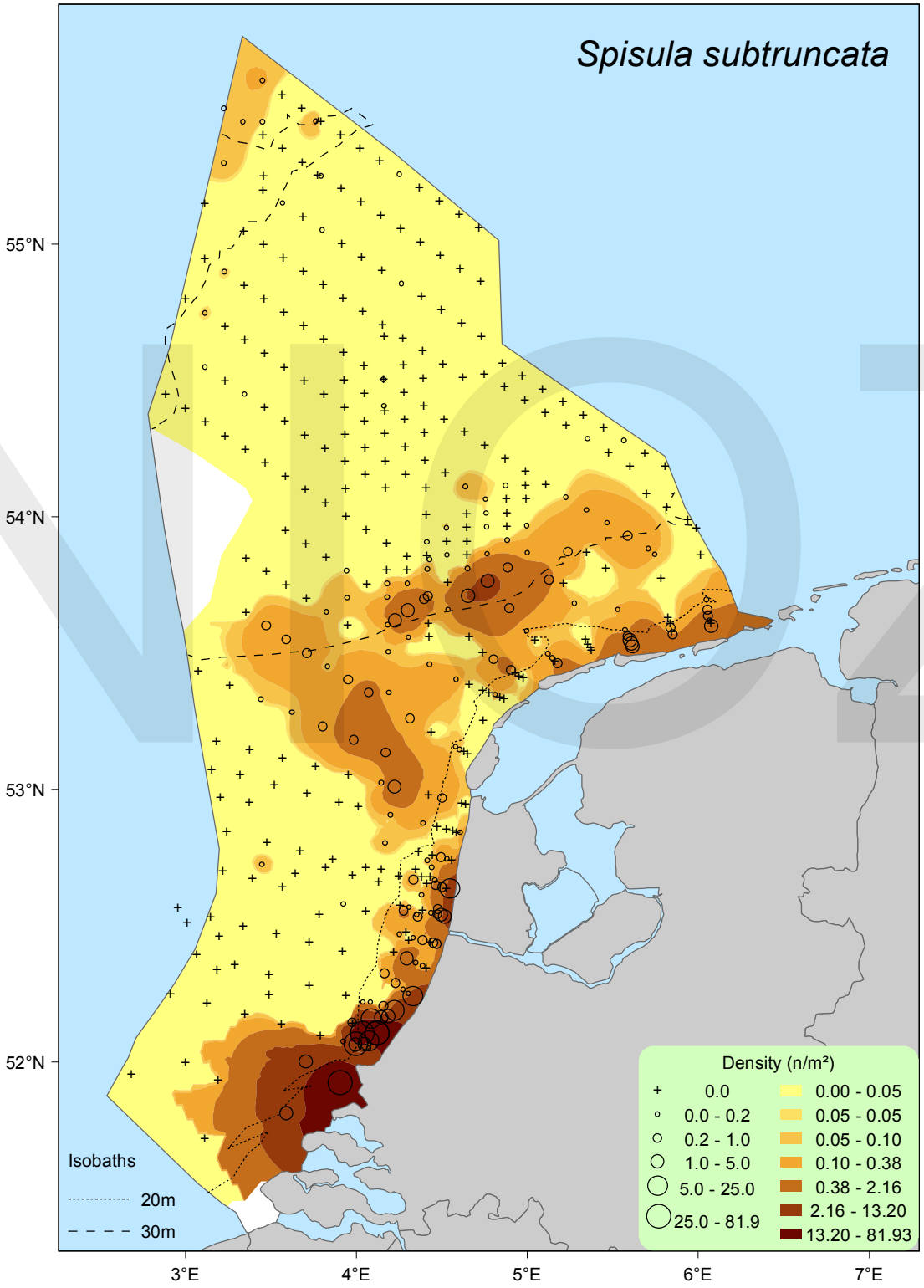

Dosinia lupinus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.65
0.000
0.000 - 0.002
0.002 - 0.006
0.006 - 0.019
0.019 - 0.062
0.062 - 0.201
0.201 - 0.649

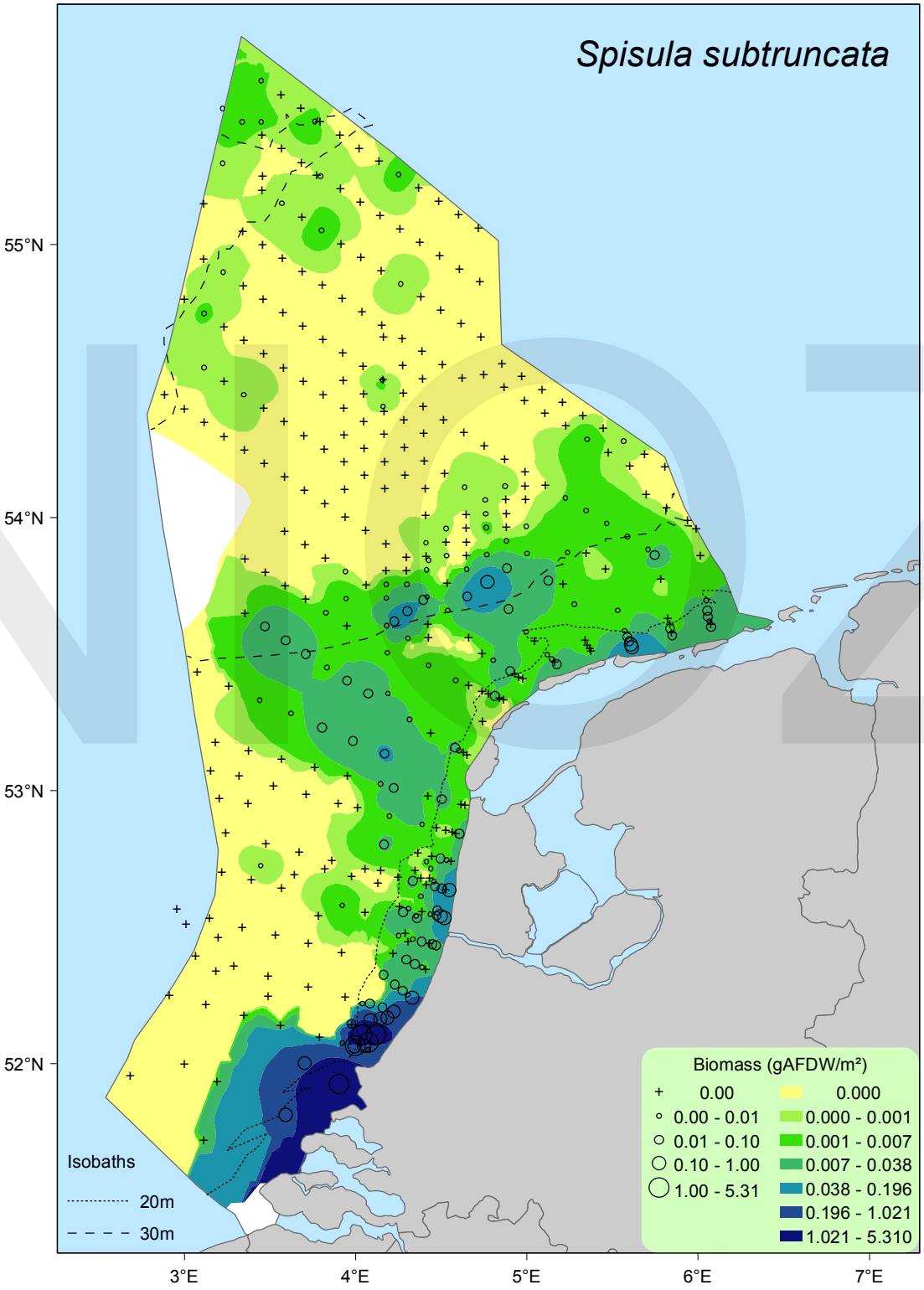

Venus shells
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Petricolaria pholadiformis
0.0 - 0.2
0.2 - 1.0
1.0 - 1.1
Venerupis corrugata
0.0 - 0.2
0.2 - 0.6
Timoclea ovata
0.0 - 0.2
Dosinia exoleta
0.0 - 0.2
0.2 - 0.7
All absent

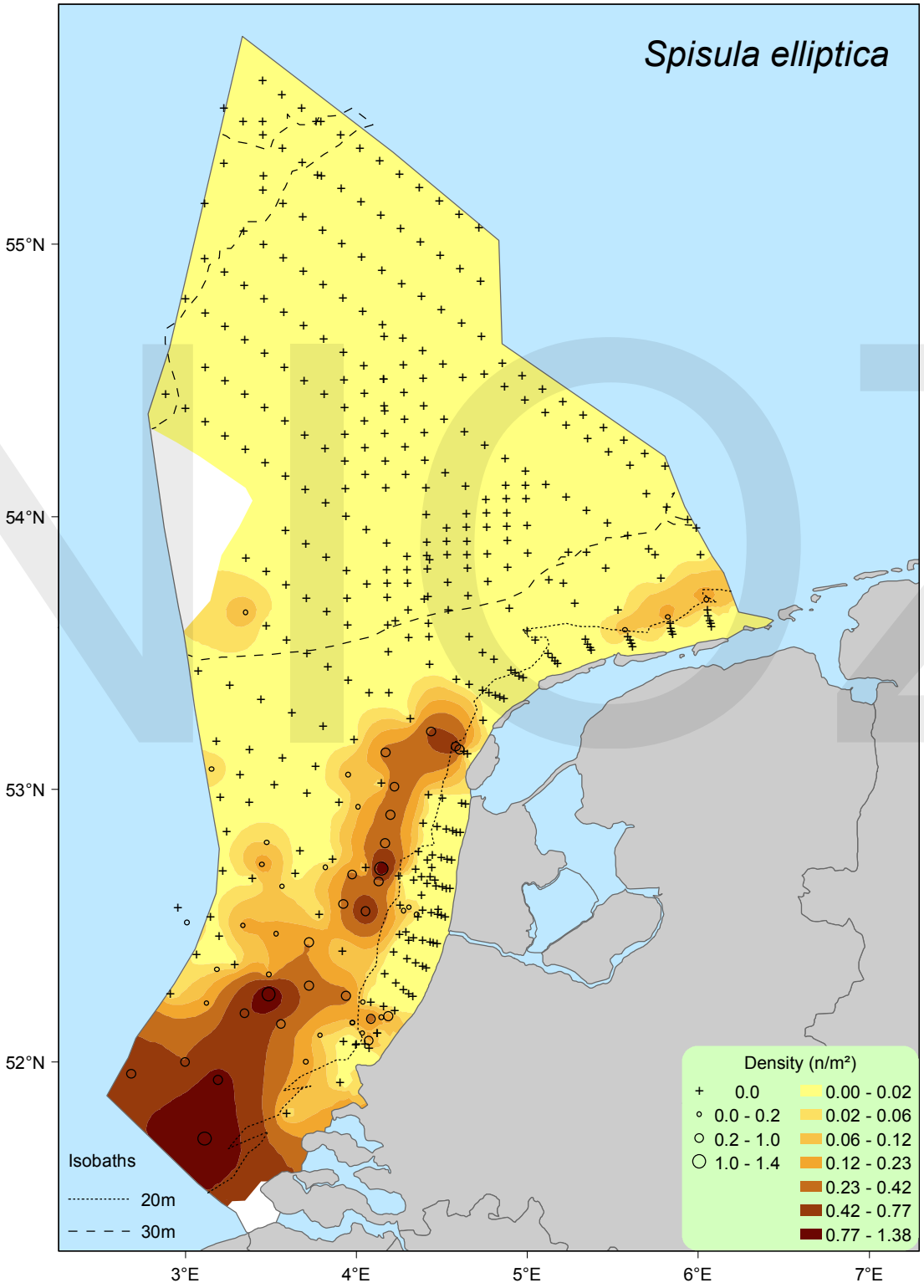

Venus shells
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Petricolaria pholadiformis
0.00 - 0.01
0.01 - 0.10
0.10 - 0.18
Venerupis corrugata
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 2.37
Timoclea ovata
0.00 - 0.01
Dosinia exoleta
0.00 - 0.01
0.01 - 0.10
0.10 - 0.20
All absent

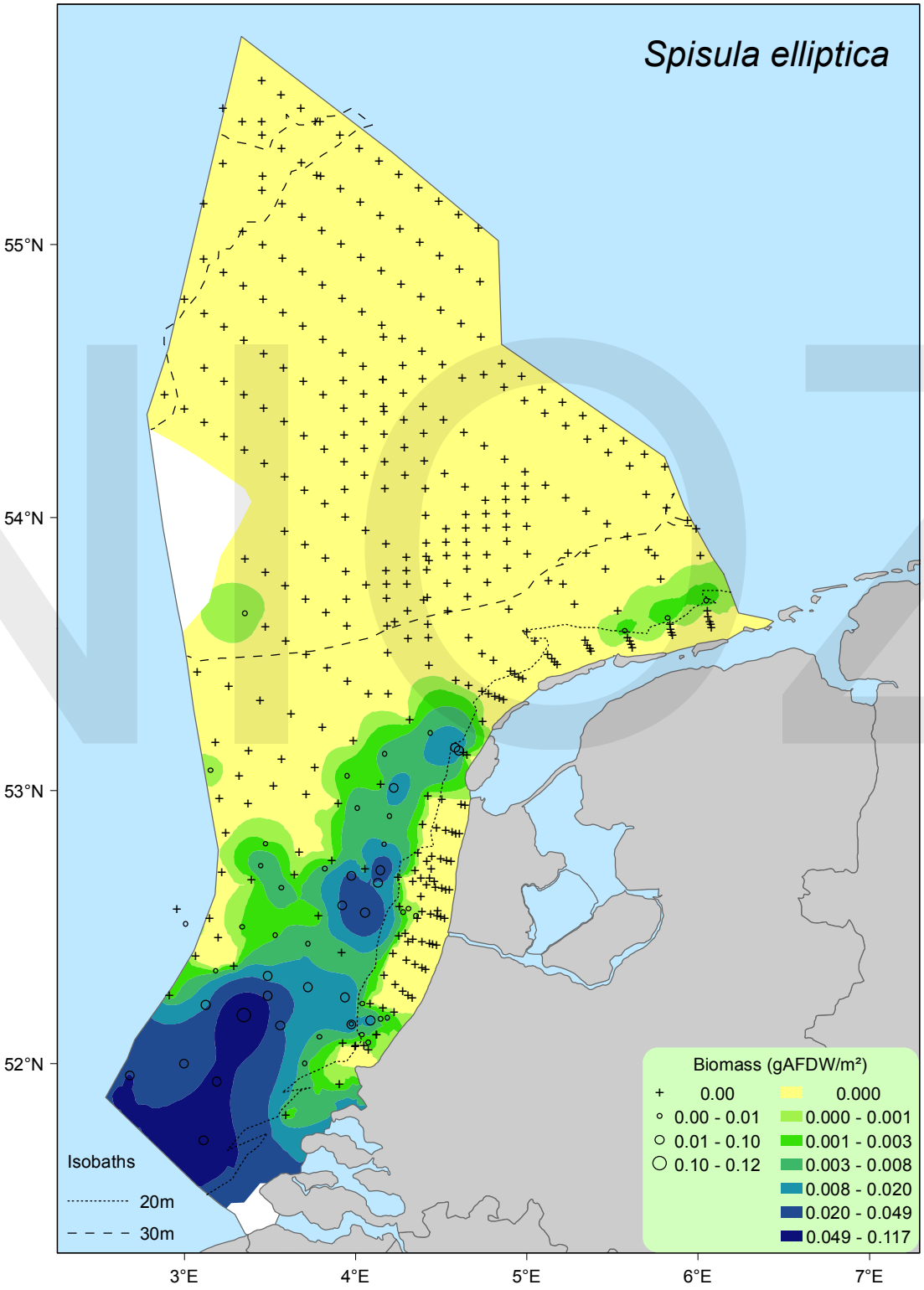

Mysia undata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 1.2
0.00 - 0.03
0.03 - 0.05
0.05 - 0.08
0.08 - 0.15
0.15 - 0.30
0.30 - 0.59
0.59 - 1.20

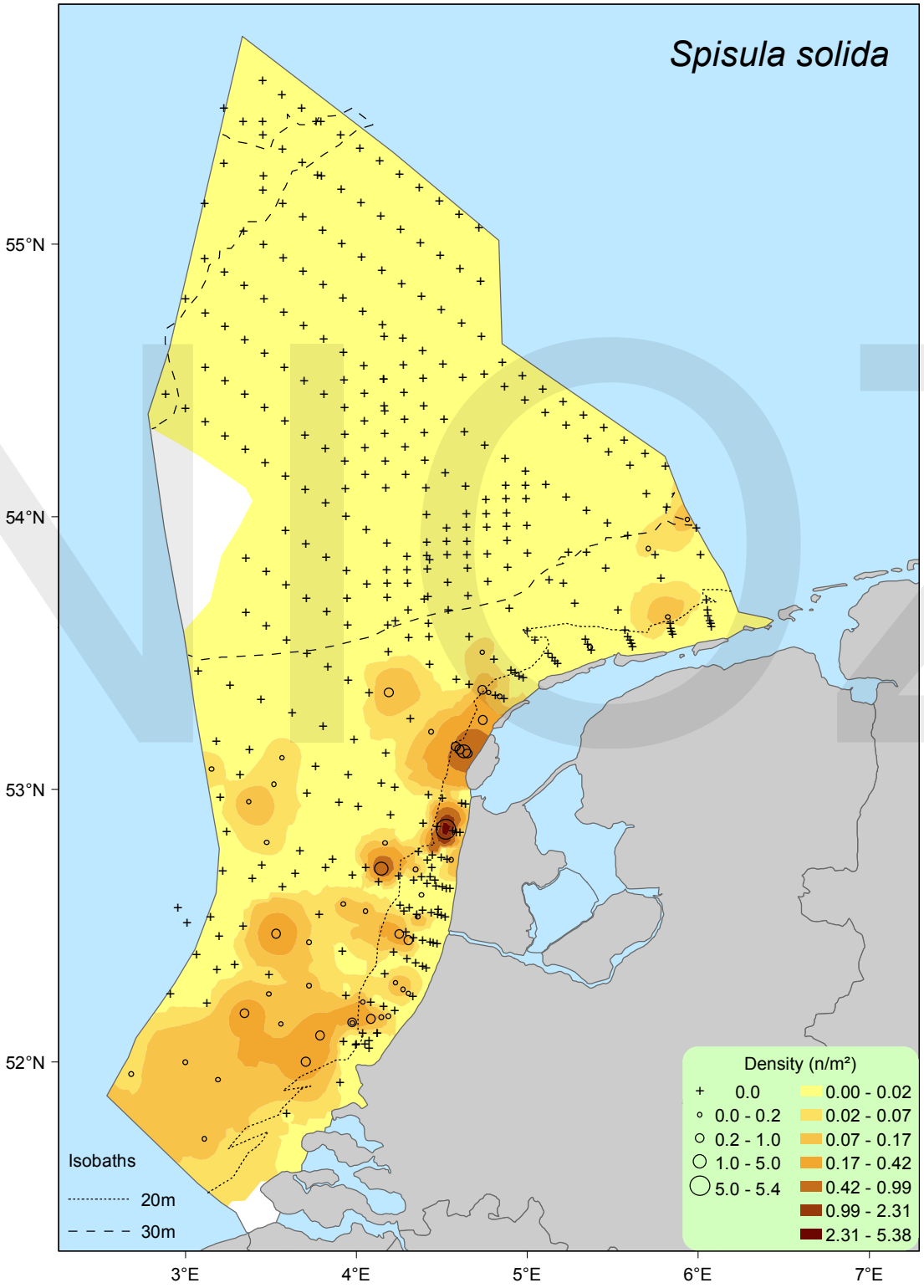

Mysia undata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.04
0.0000 - 0.0003
0.0003 - 0.0008
0.0008 - 0.0019
0.0019 - 0.0042
0.0042 - 0.0088
0.0088 - 0.0184
0.0184 - 0.0381

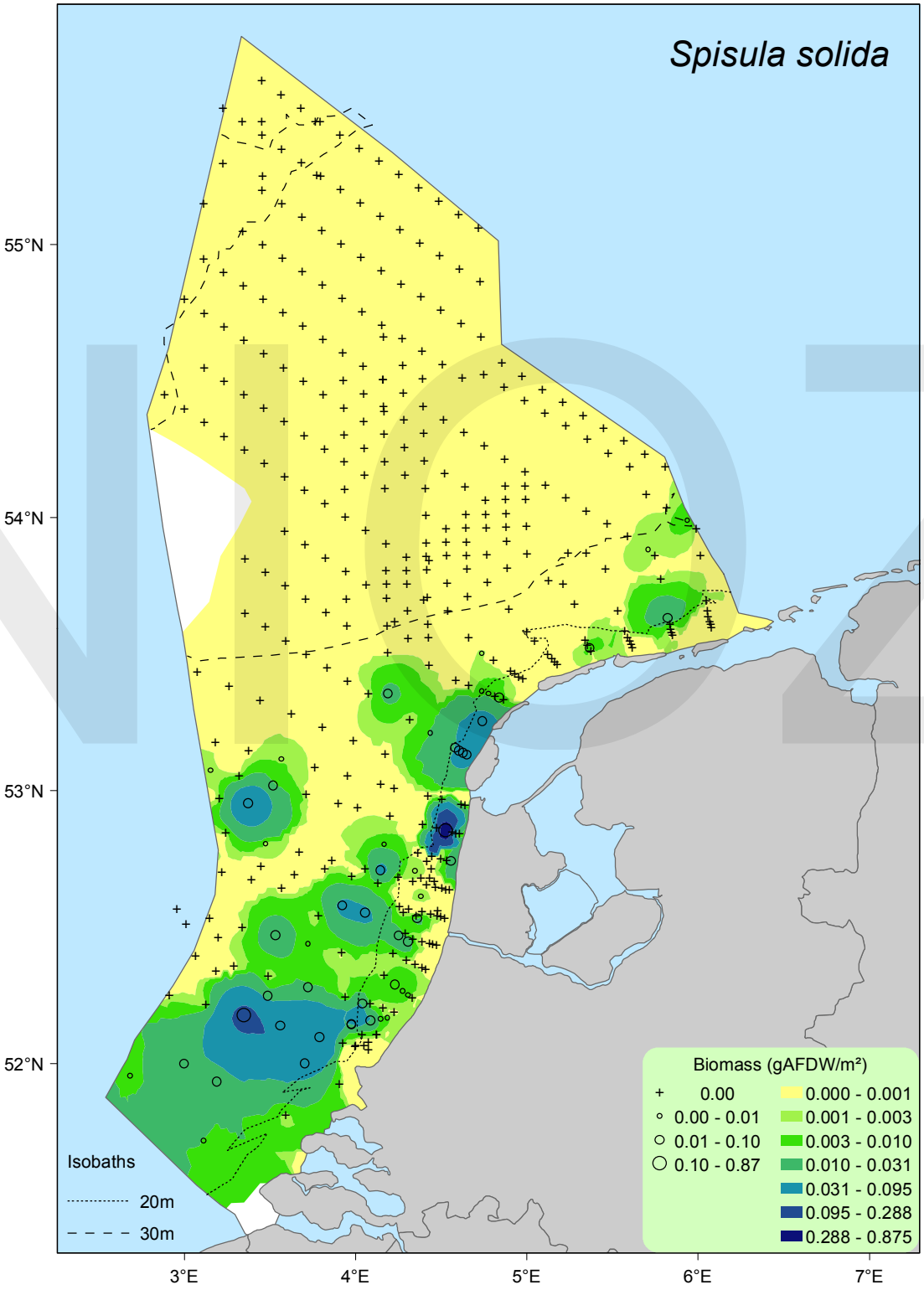

Spisula subtruncata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 81.9
0.00 - 0.05
0.05 - 0.05
0.05 - 0.10
0.10 - 0.38
0.38 - 2.16
2.16 - 13.20
13.20 - 81.93

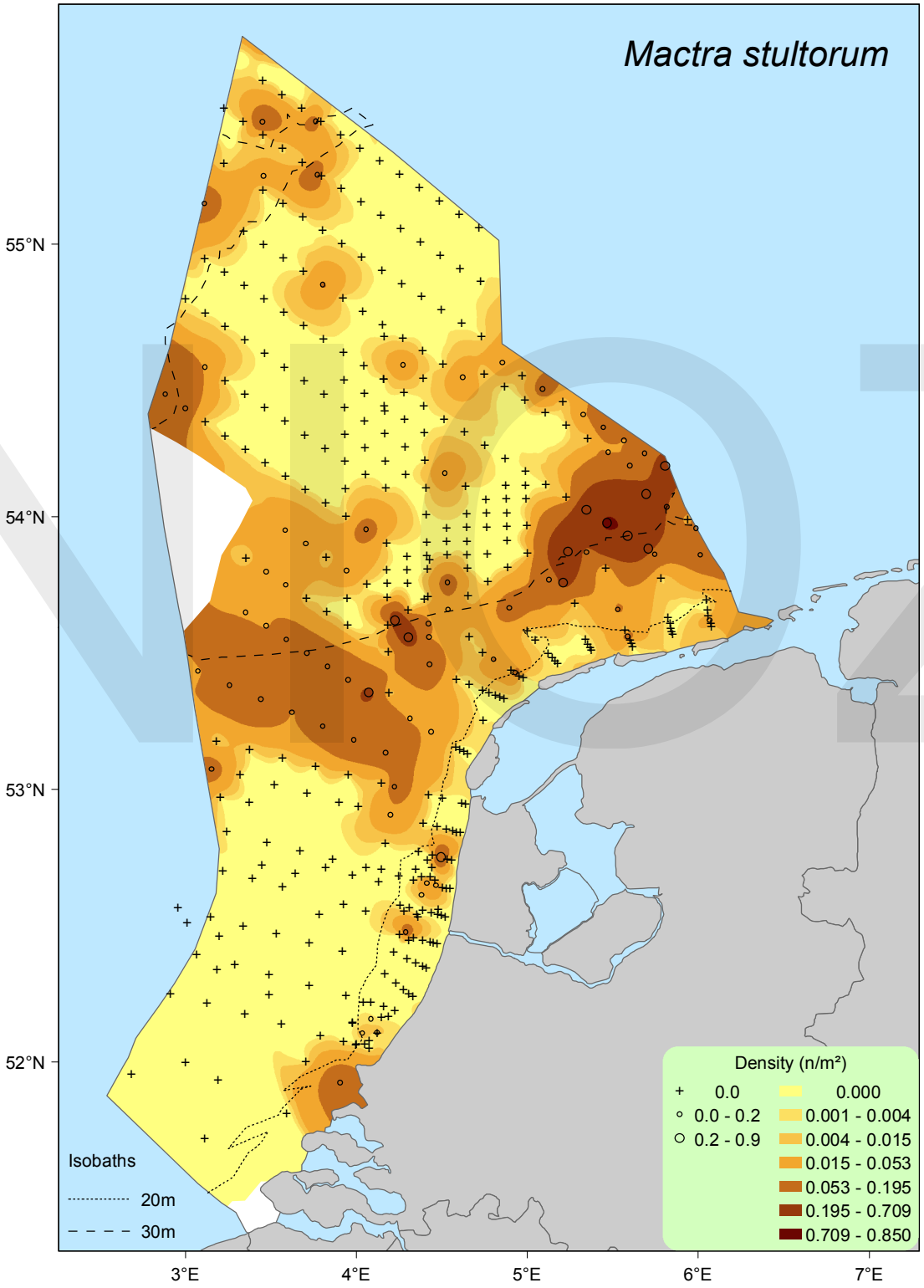

Spisula subtruncata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 5.31
0.000
0.000 - 0.001
0.001 - 0.007
0.007 - 0.038
0.038 - 0.196
0.196 - 1.021
1.021 - 5.310

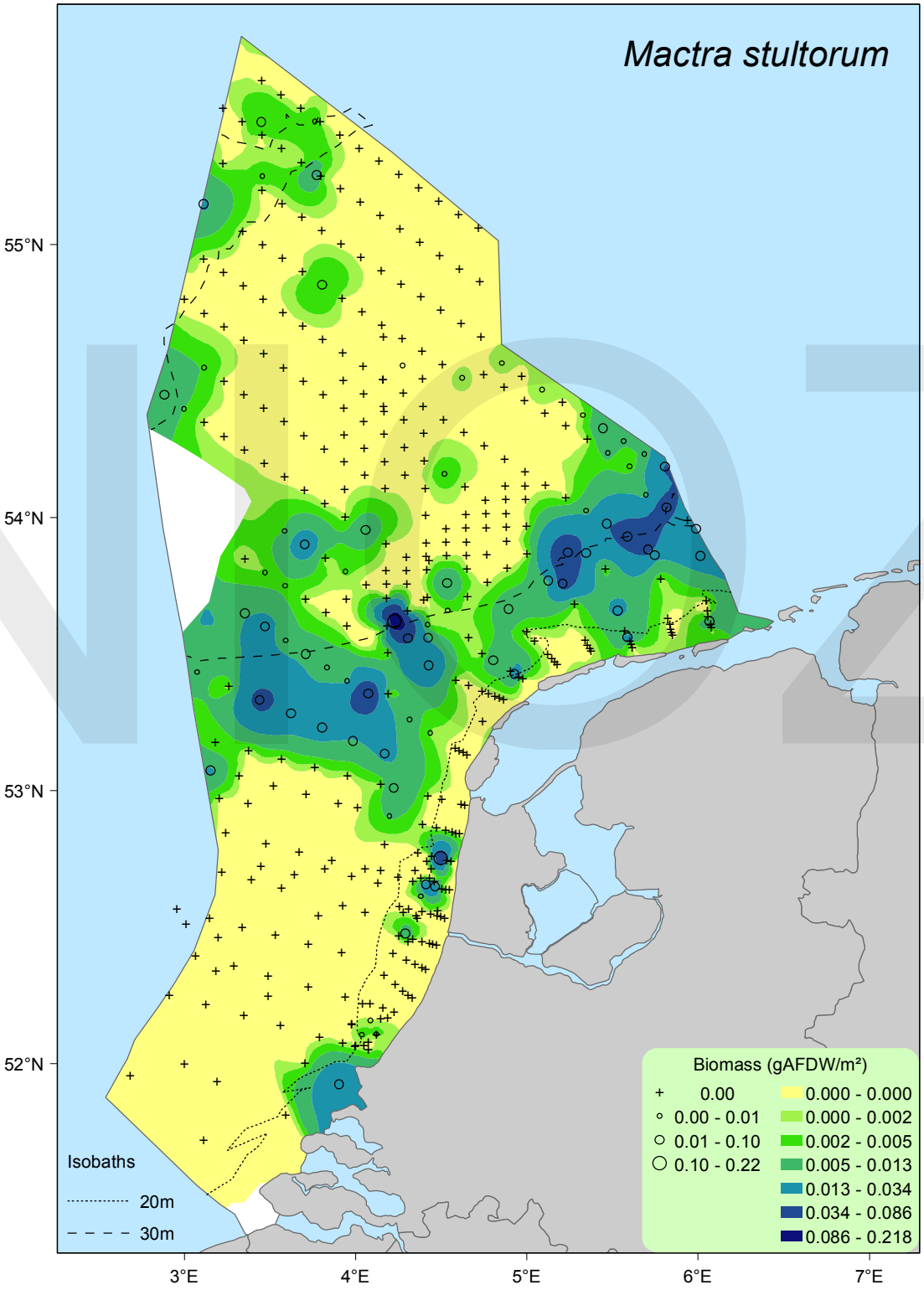

Spisula elliptica
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 1.4
0.00 - 0.02
0.02 - 0.06
0.06 - 0.12
0.12 - 0.23
0.23 - 0.42
0.42 - 0.77
0.77 - 1.38

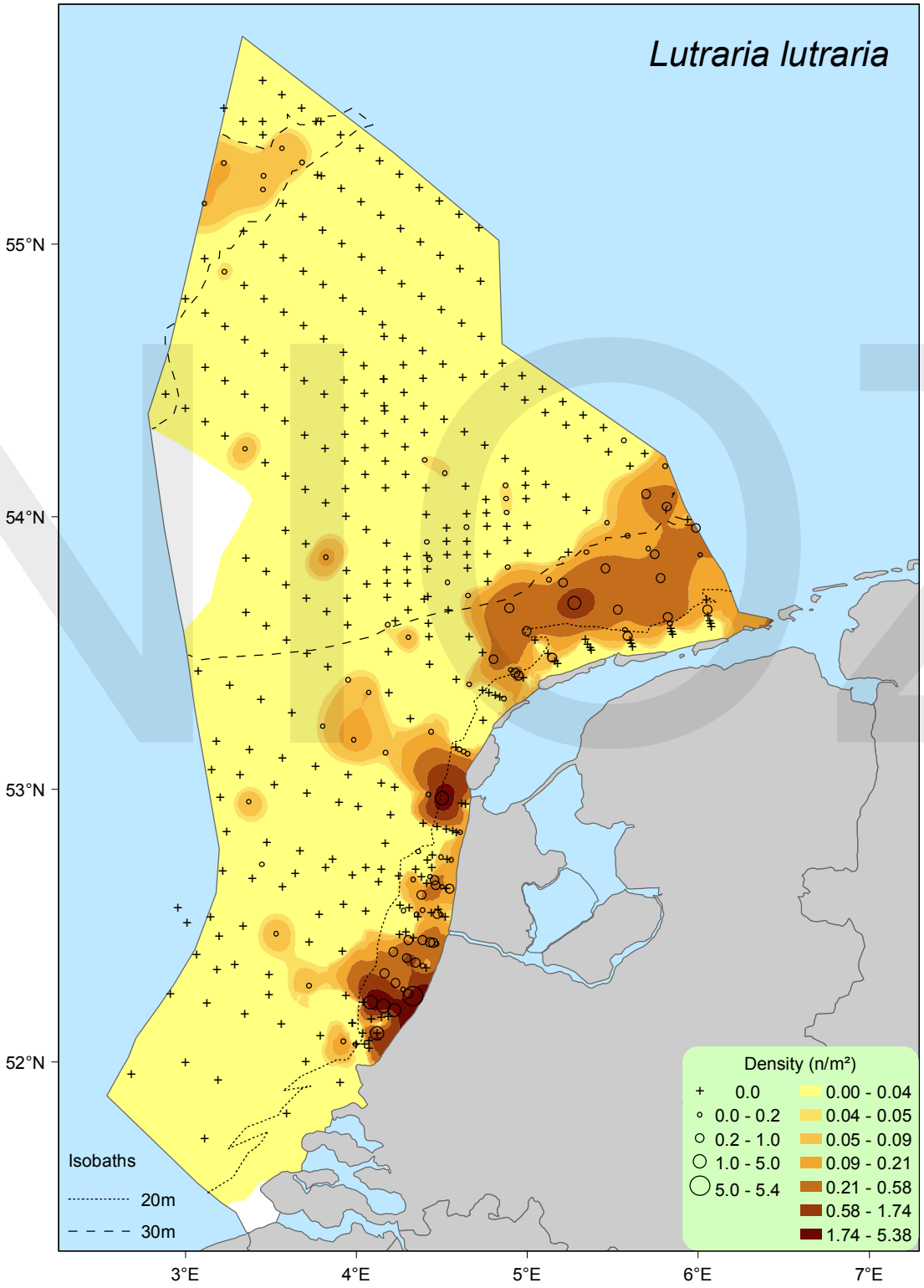

Spisula elliptica
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.12
0.000
0.000 - 0.001
0.001 - 0.003
0.003 - 0.008
0.008 - 0.020
0.020 - 0.049
0.049 - 0.117
Isobaths
20m
30m

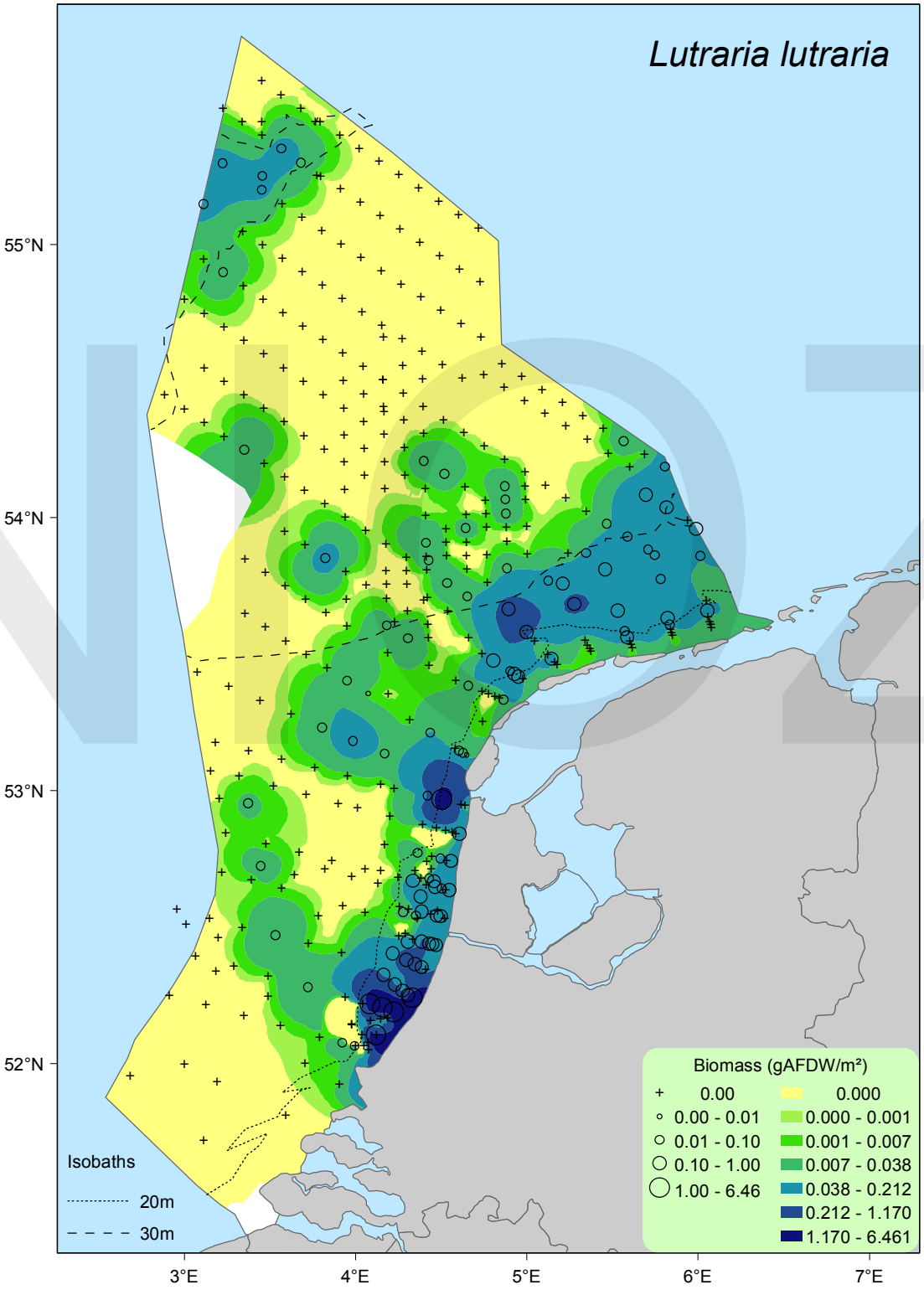

Spisula solida
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 5.4
0.00 - 0.02
0.02 - 0.07
0.07 - 0.17
0.17 - 0.42
0.42 - 0.99
0.99 - 2.31
2.31 - 5.38

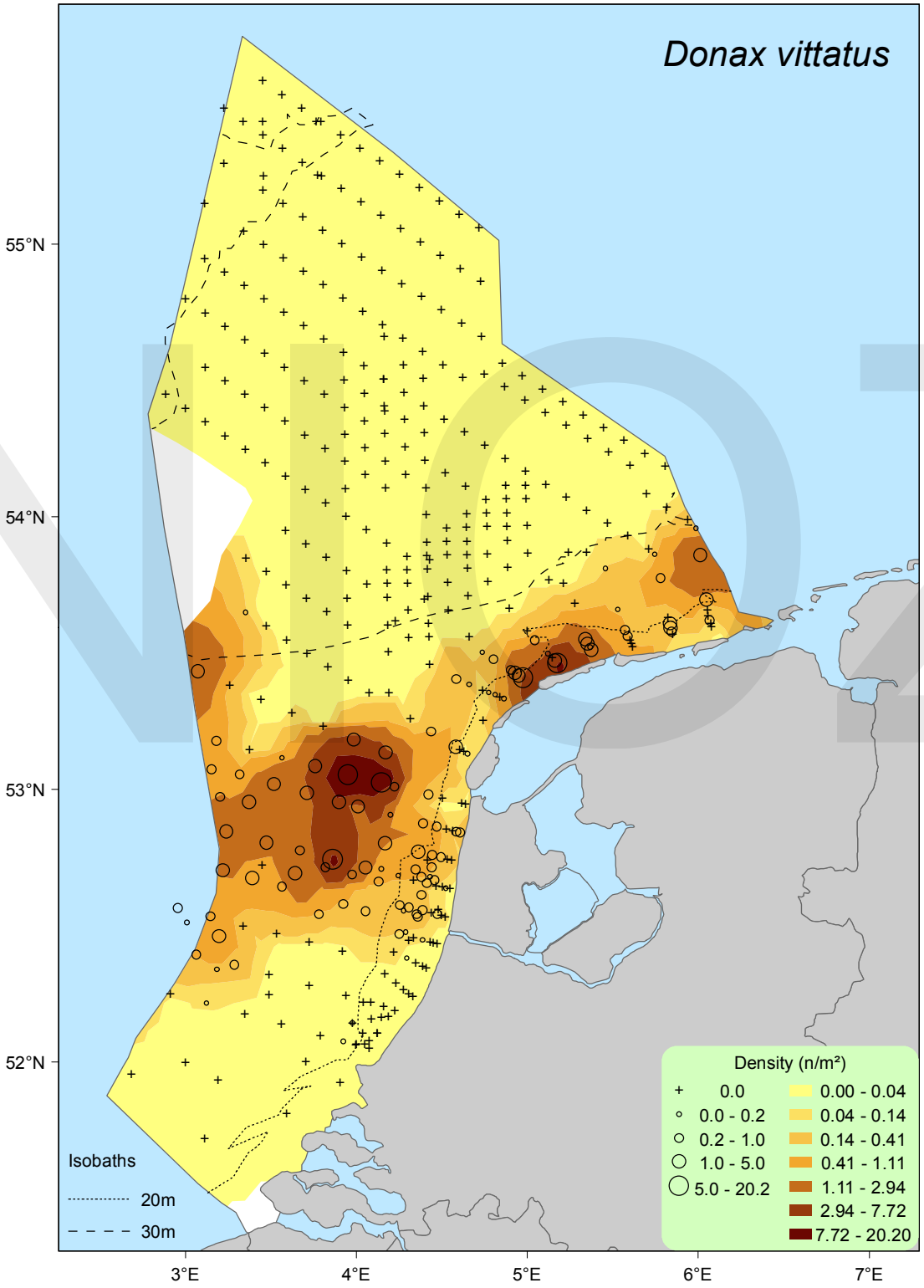

Spisula solida
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.87
0.000 - 0.001
0.001 - 0.003
0.003 - 0.010
0.010 - 0.031
0.031 - 0.095
0.095 - 0.288
0.288 - 0.875

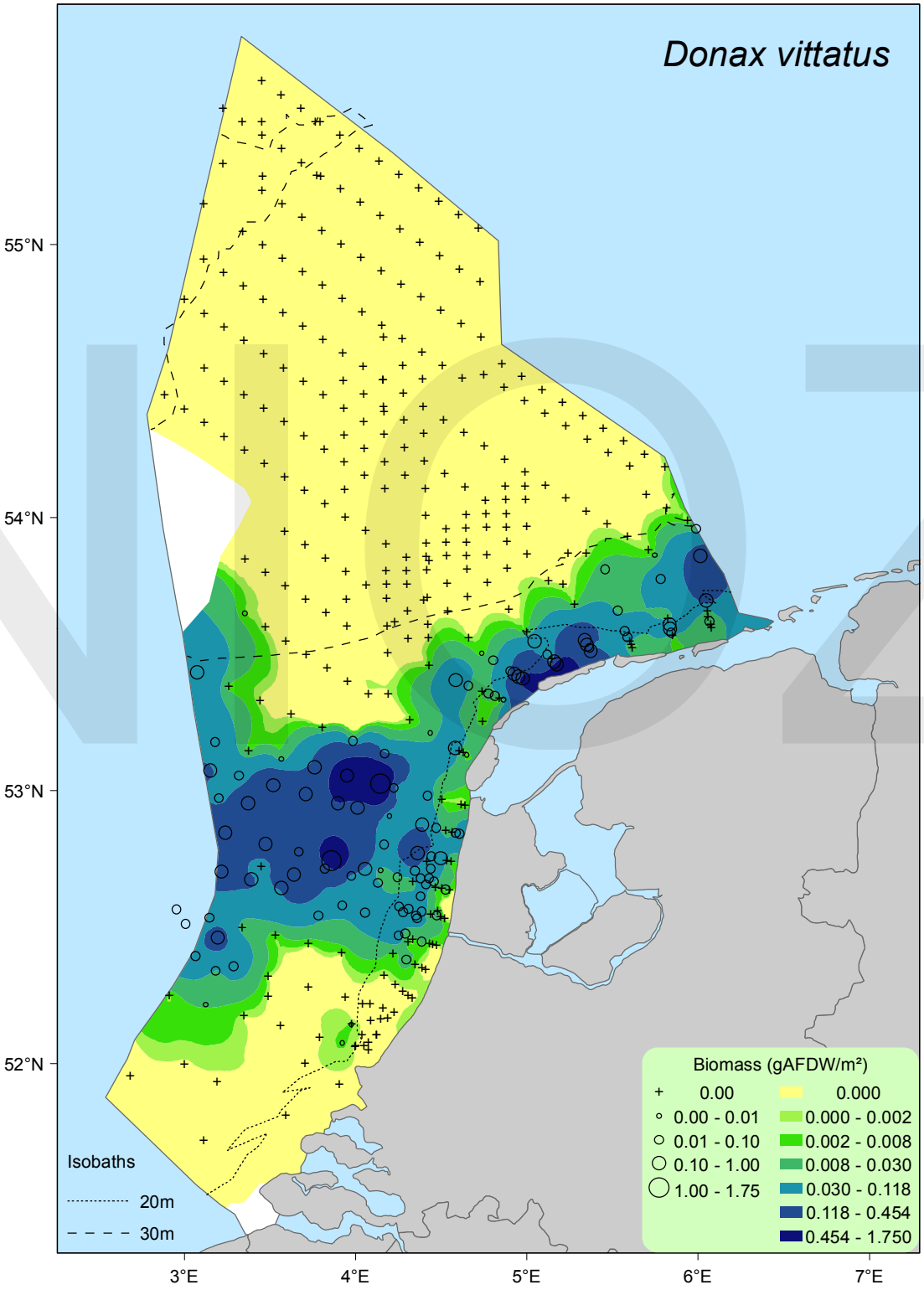

Mactra stultorum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.9
0.000
0.001 - 0.004
0.004 - 0.015
0.015 - 0.053
0.053 - 0.195
0.195 - 0.709
0.709 - 0.850

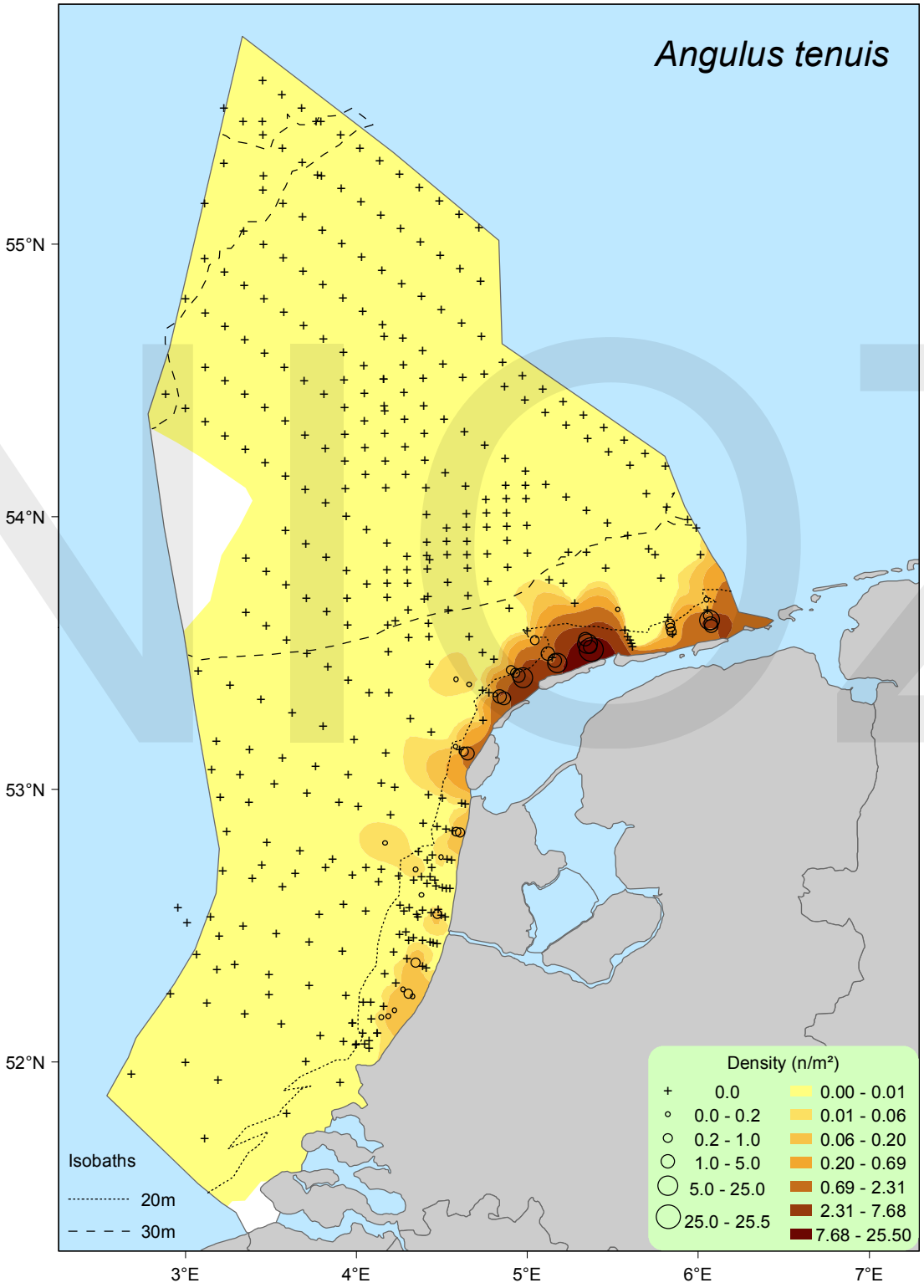

Mactra stultorum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.22
0.000 - 0.000
0.000 - 0.002
0.002 - 0.005
0.005 - 0.013
0.013 - 0.034
0.034 - 0.086
0.086 - 0.218

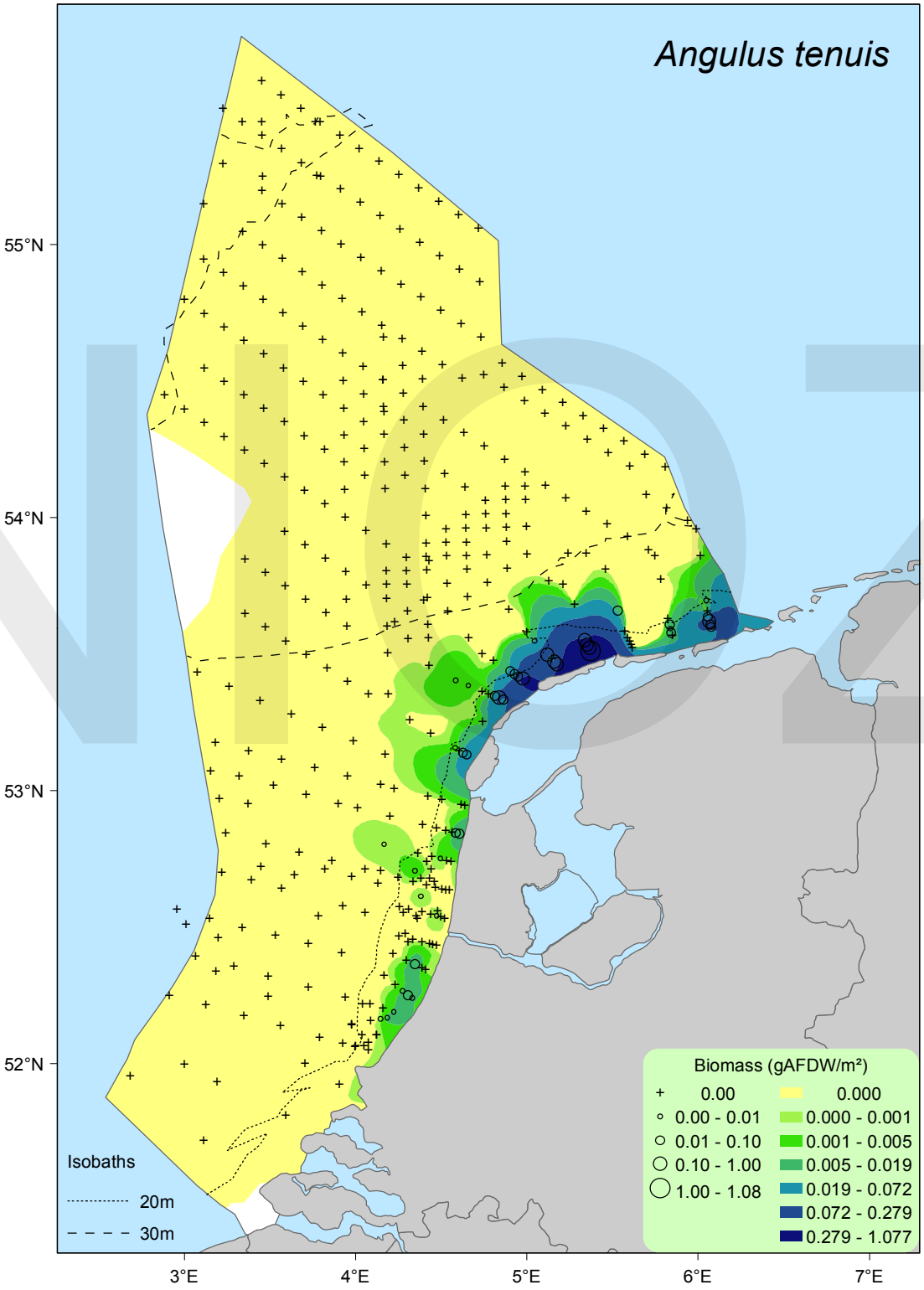

Lutraria lutraria
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 5.4
0.00 - 0.04
0.04 - 0.05
0.05 - 0.09
0.09 - 0.21
0.21 - 0.58
0.58 - 1.74
1.74 - 5.38

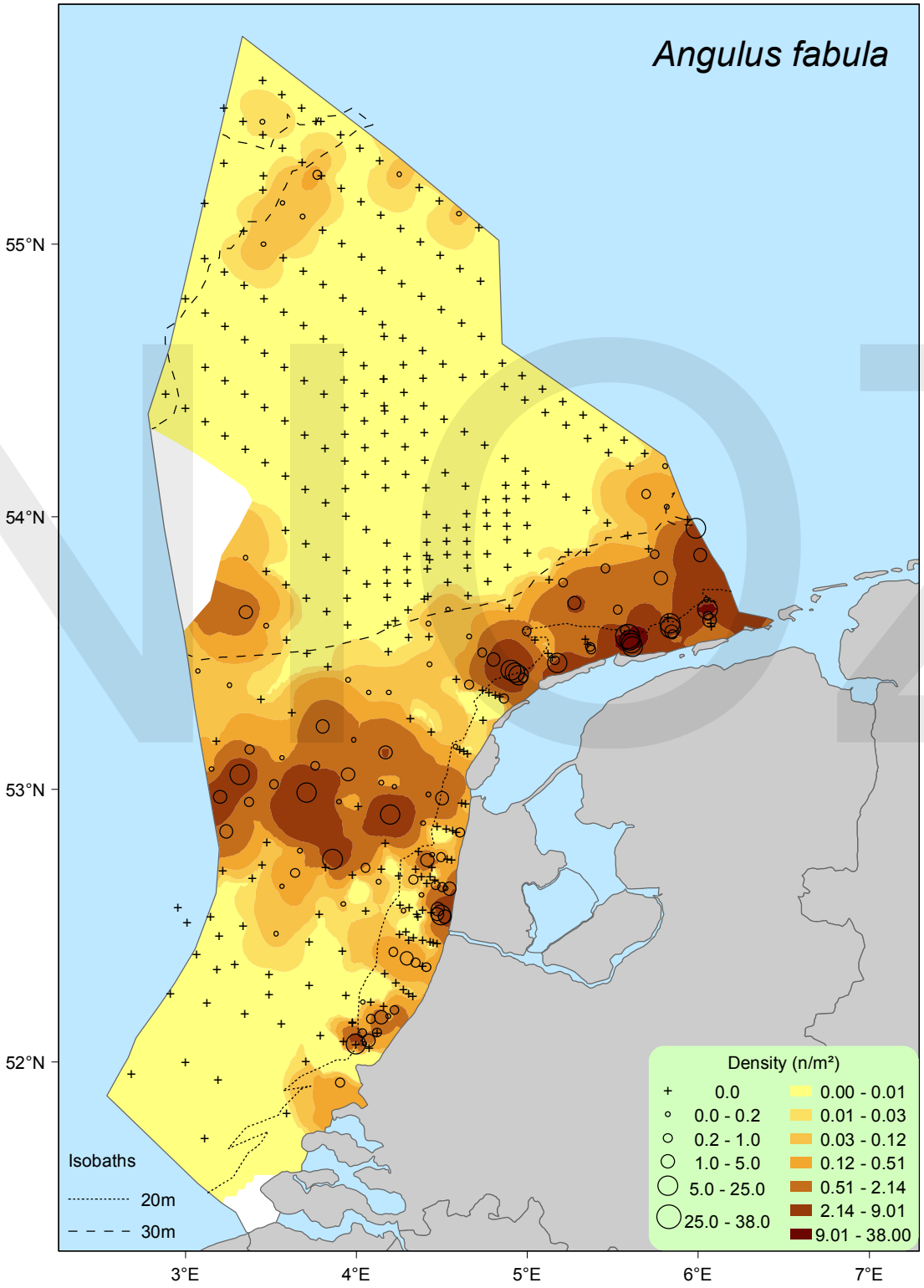

Lutraria lutraria
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 6.46
0.000
0.000 - 0.001
0.001 - 0.007
0.007 - 0.038
0.038 - 0.212
0.212 - 1.170
1.170 - 6.461

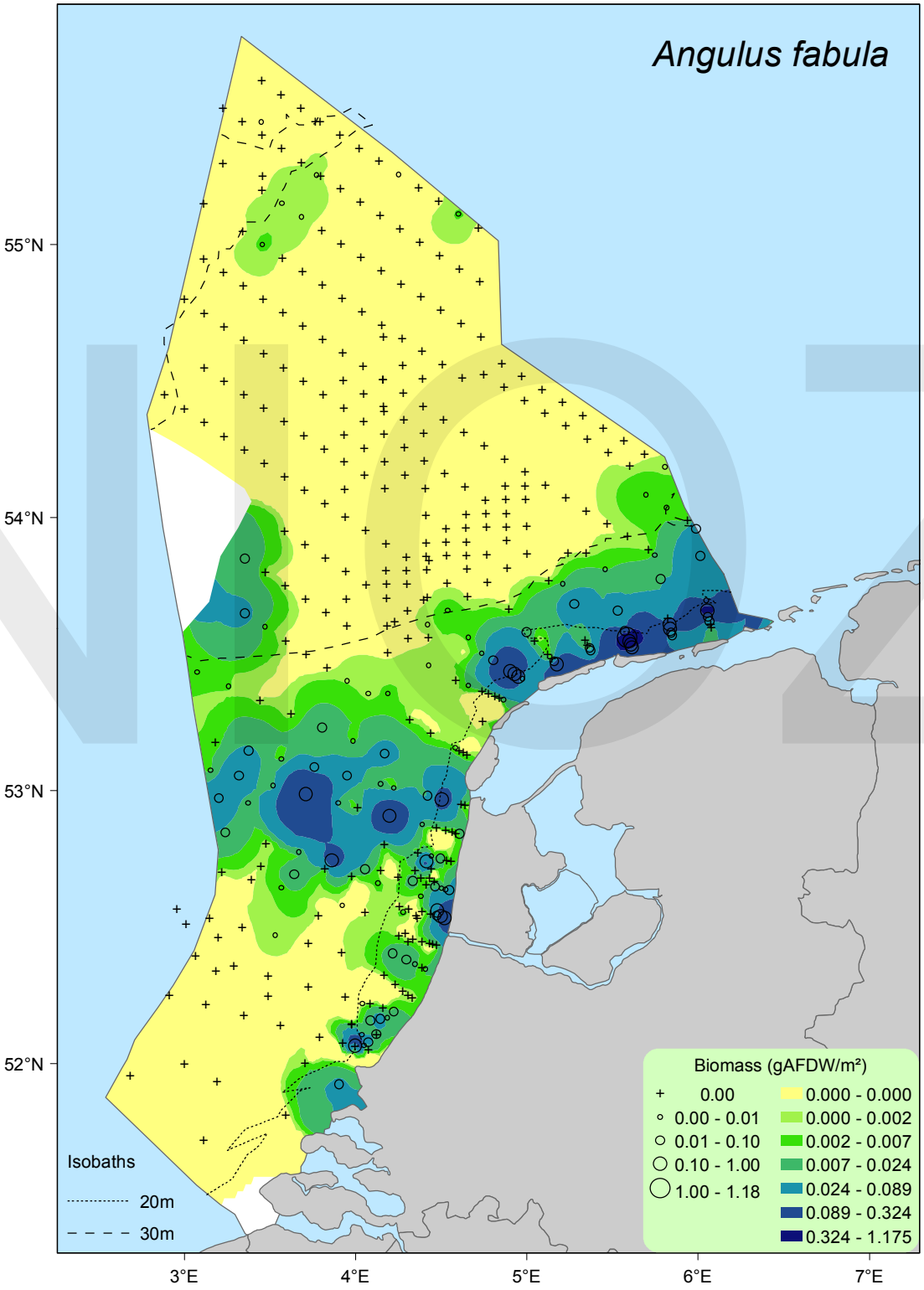

Donax vittatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 20.2
0.00 - 0.04
0.04 - 0.14
0.14 - 0.41
0.41 - 1.11
1.11 - 2.94
2.94 - 7.72
7.72 - 20.20

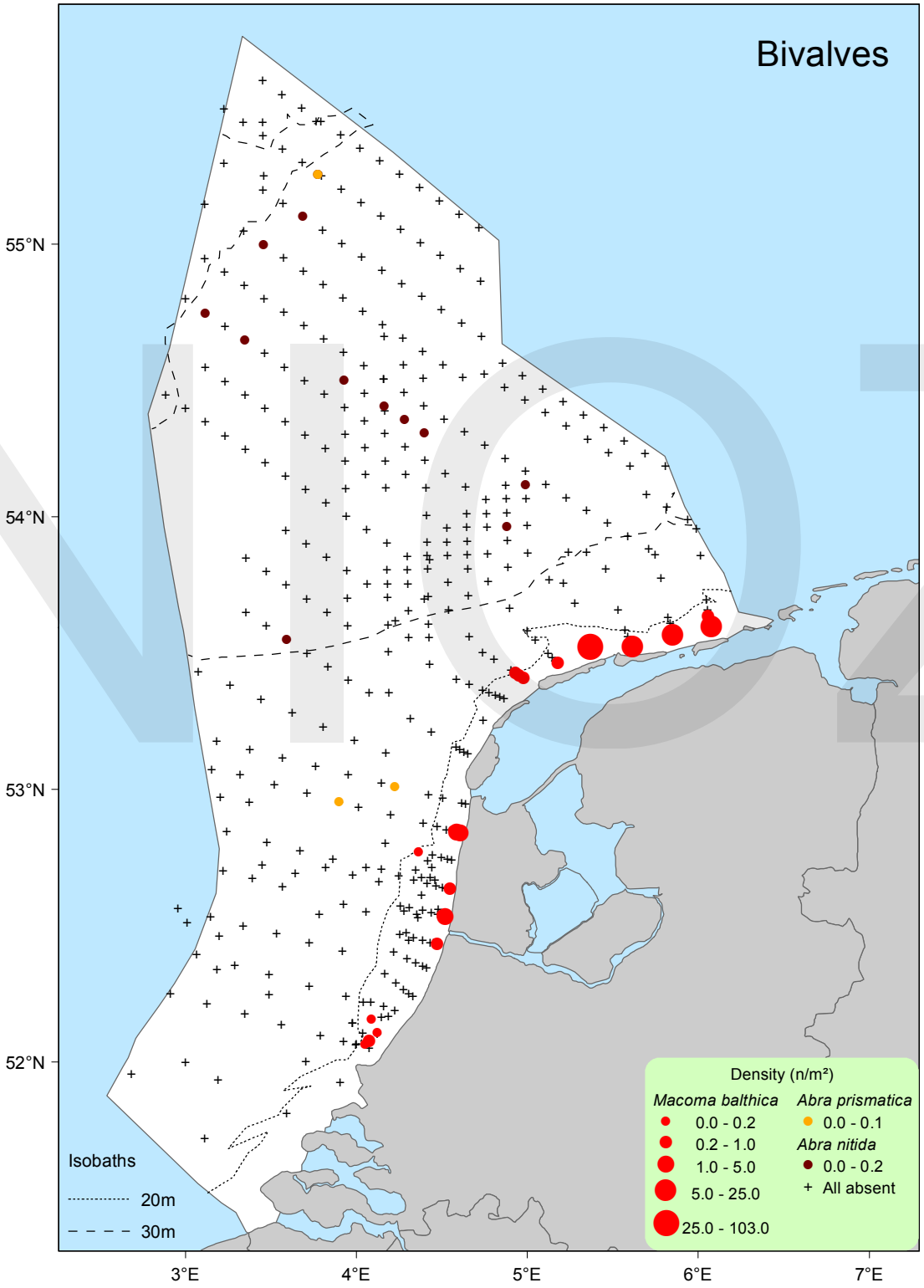

Donax vittatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.75
0.000
0.000 - 0.002
0.002 - 0.008
0.008 - 0.030
0.030 - 0.118
0.118 - 0.454
0.454 - 1.750

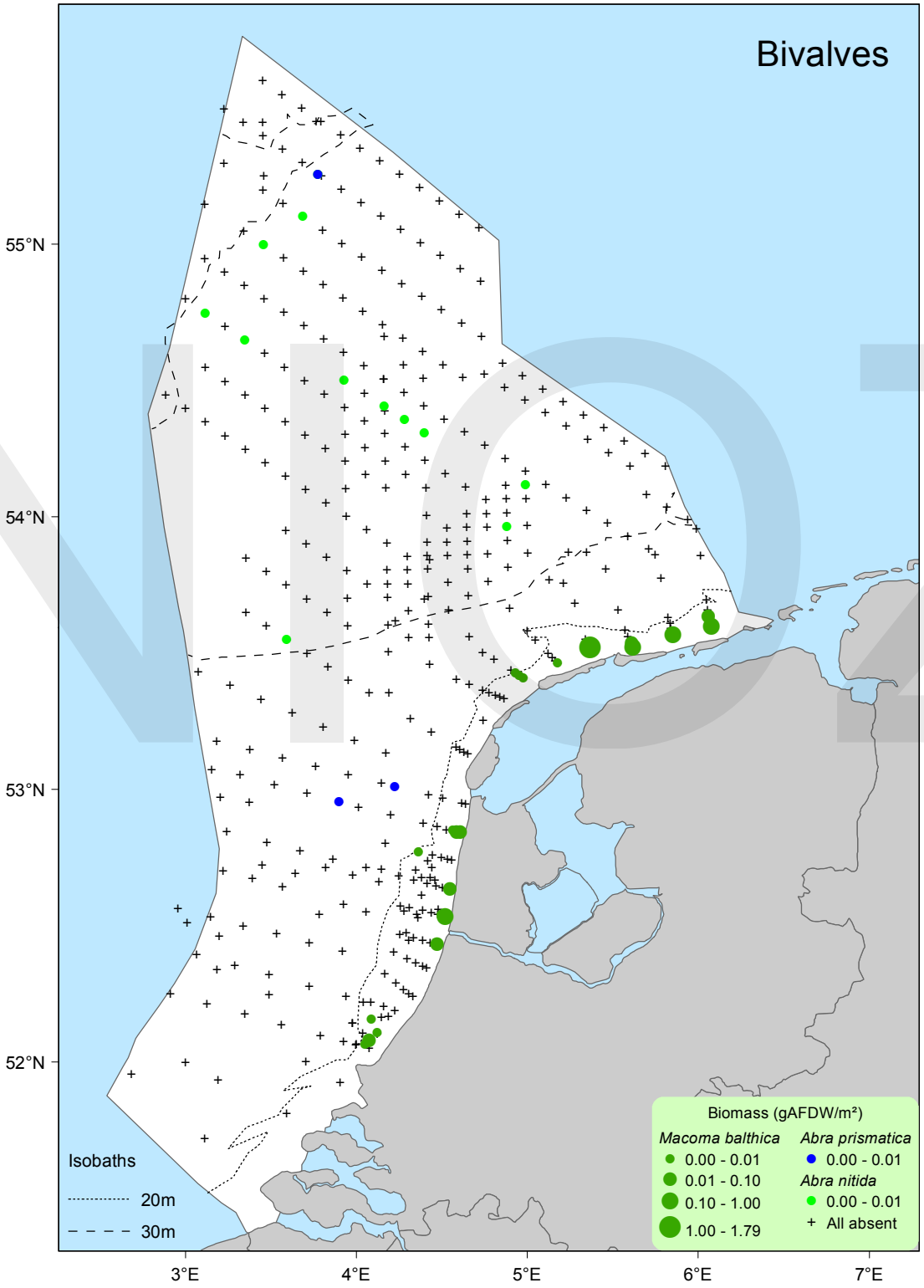

Angulus tenuis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 25.5
0.00 - 0.01
0.01 - 0.06
0.06 - 0.20
0.20 - 0.69
0.69 - 2.31
2.31 - 7.68
7.68 - 25.50

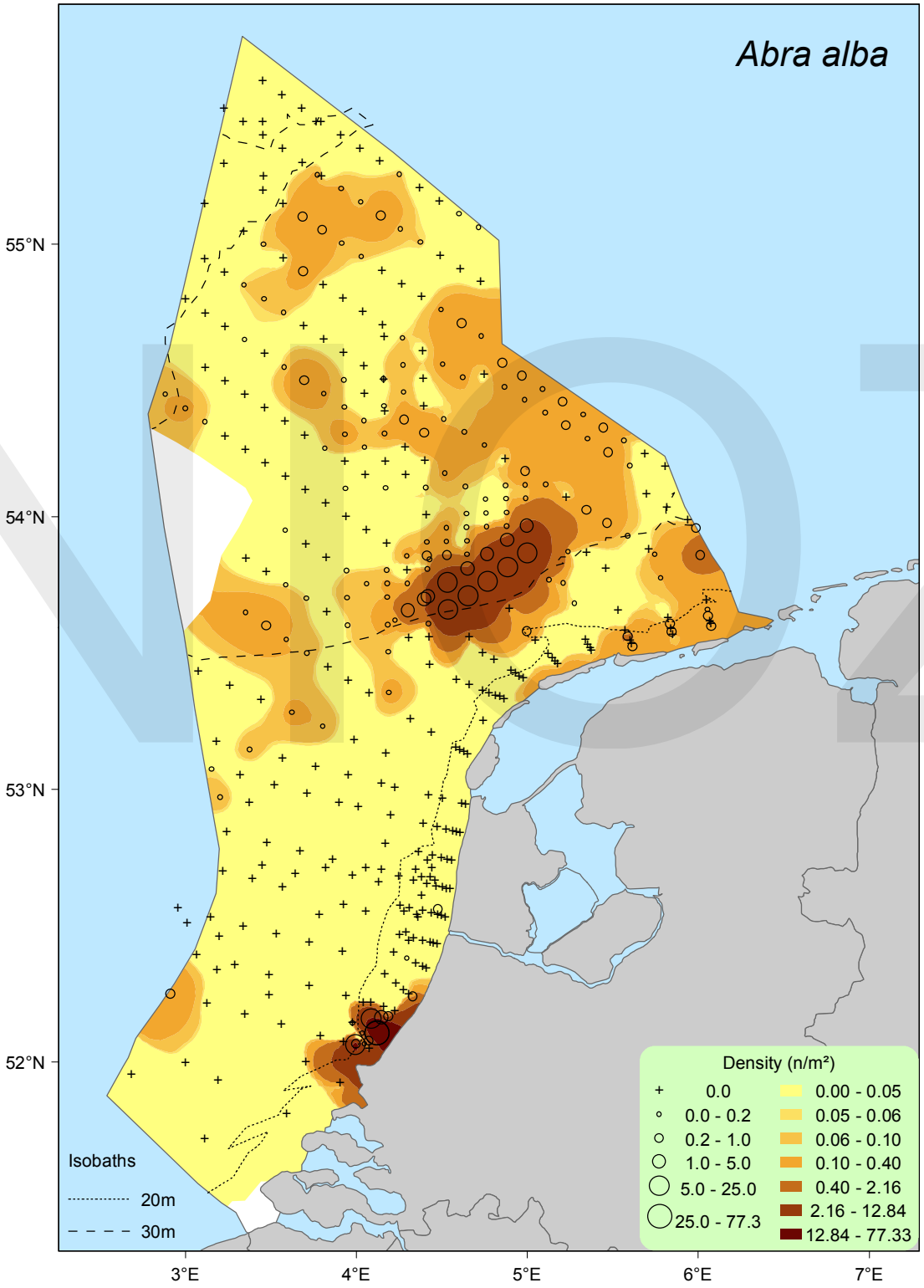

Angulus tenuis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.08
0.000
0.000 - 0.001
0.001 - 0.005
0.005 - 0.019
0.019 - 0.072
0.072 - 0.279
0.279 - 1.077

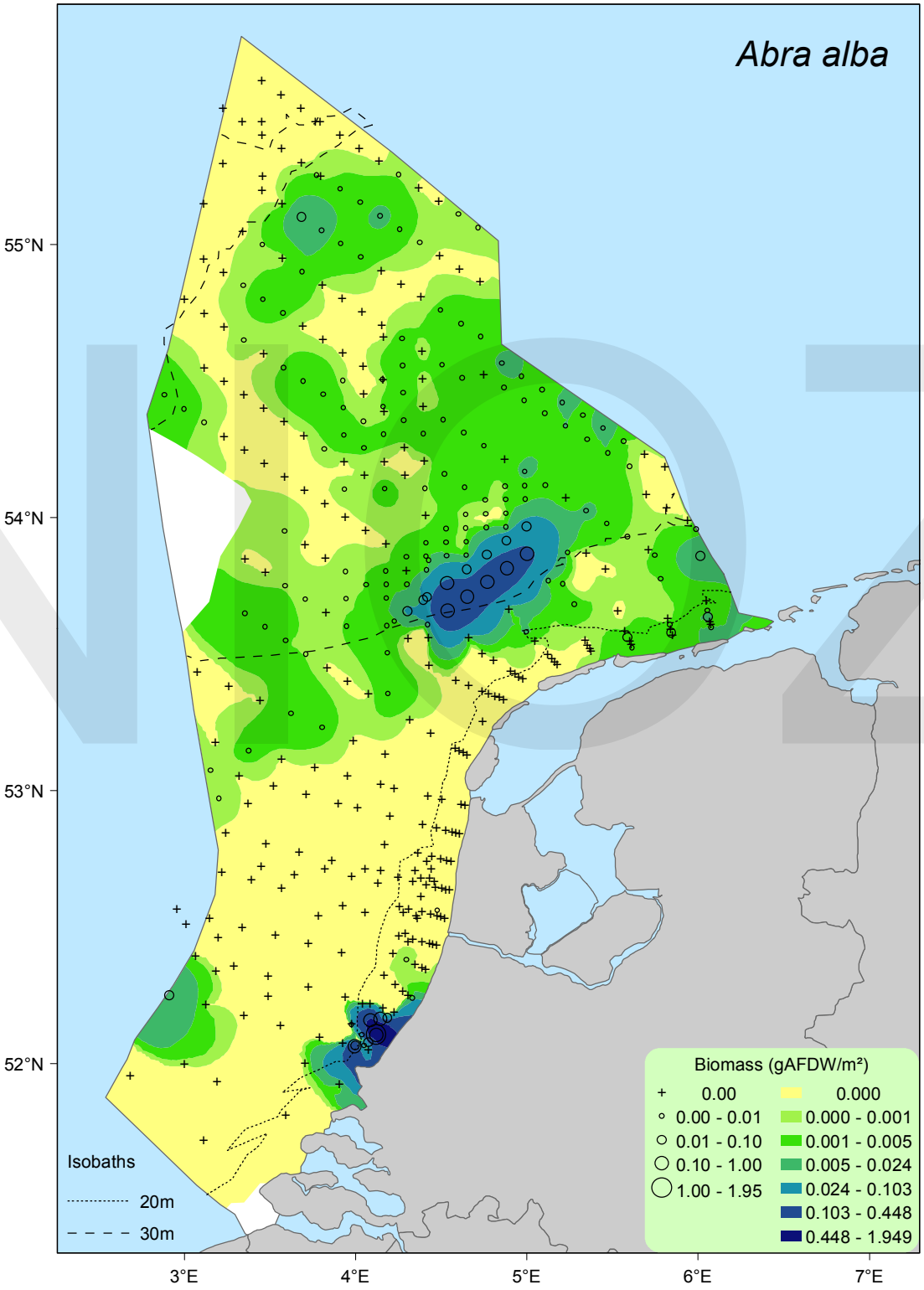

Angulus fabula
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 38.0
0.00 - 0.01
0.01 - 0.03
0.03 - 0.12
0.12 - 0.51
0.51 - 2.14
2.14 - 9.01
9.01 - 38.00

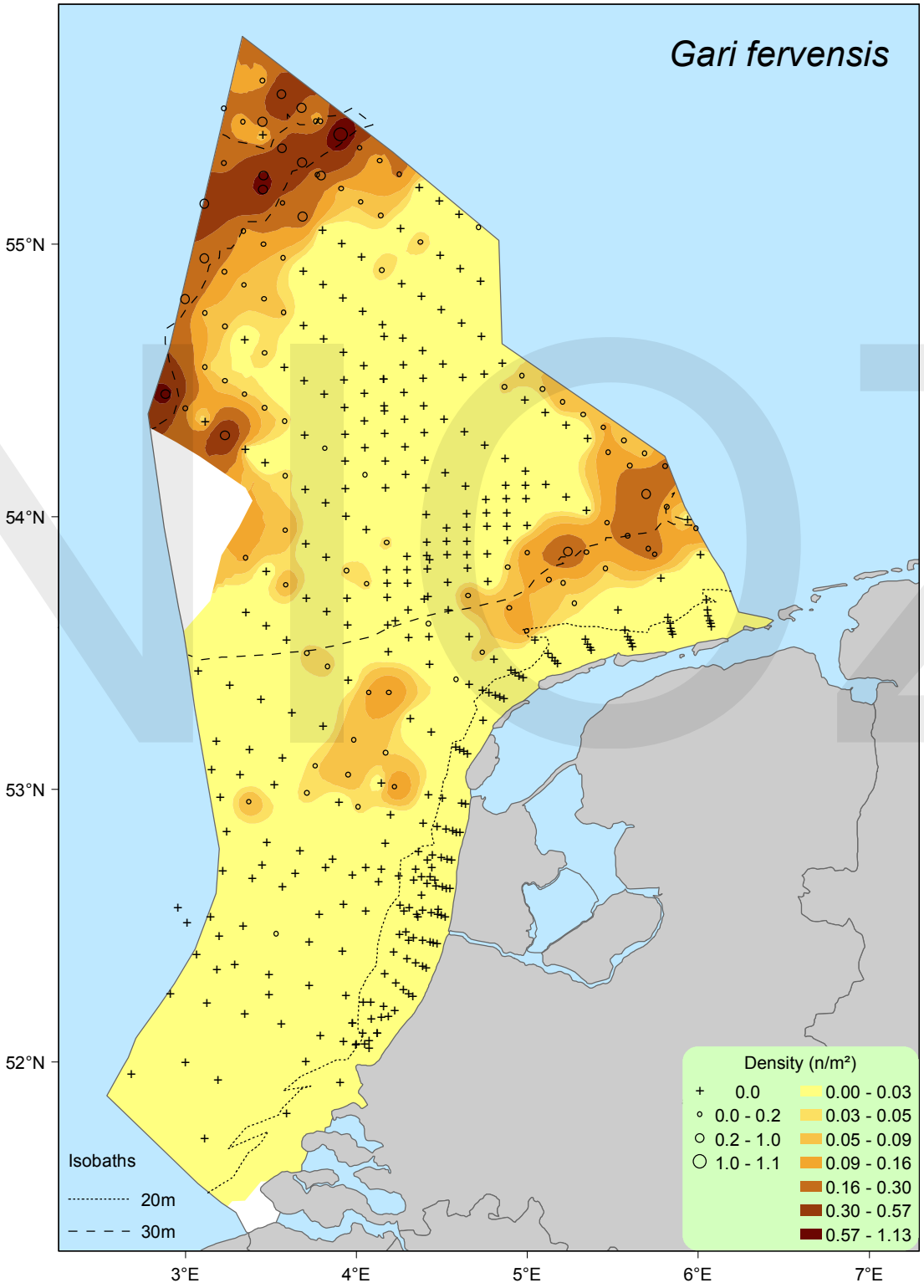

Angulus fabula
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.18
0.000 - 0.000
0.000 - 0.002
0.002 - 0.007
0.007 - 0.024
0.024 - 0.089
0.089 - 0.324
0.324 - 1.175

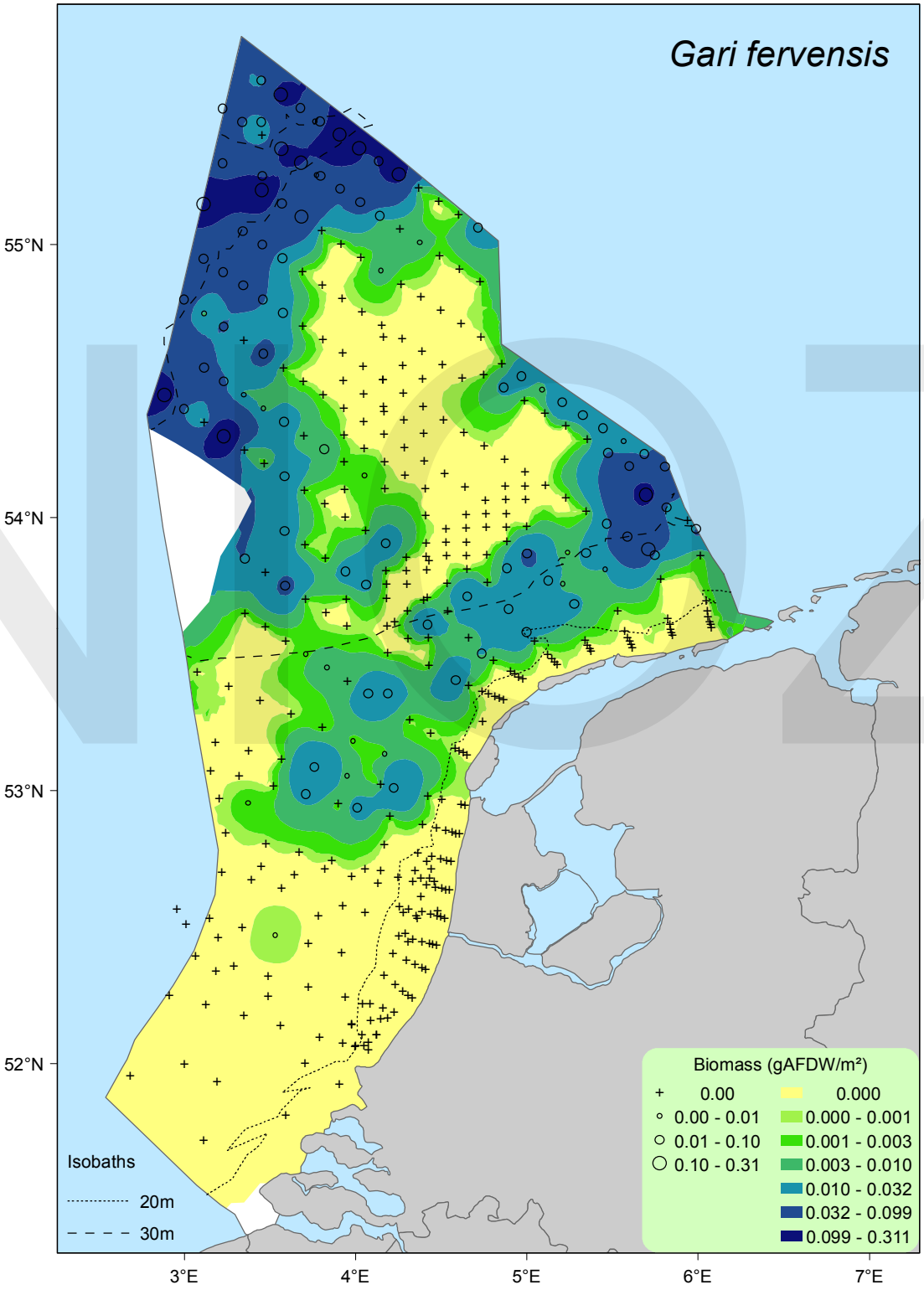

Bivalves
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Macoma balthica
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 103.0
Abra prismatica
0.0 - 0.1
Abra nitida
0.0 - 0.2
All absent

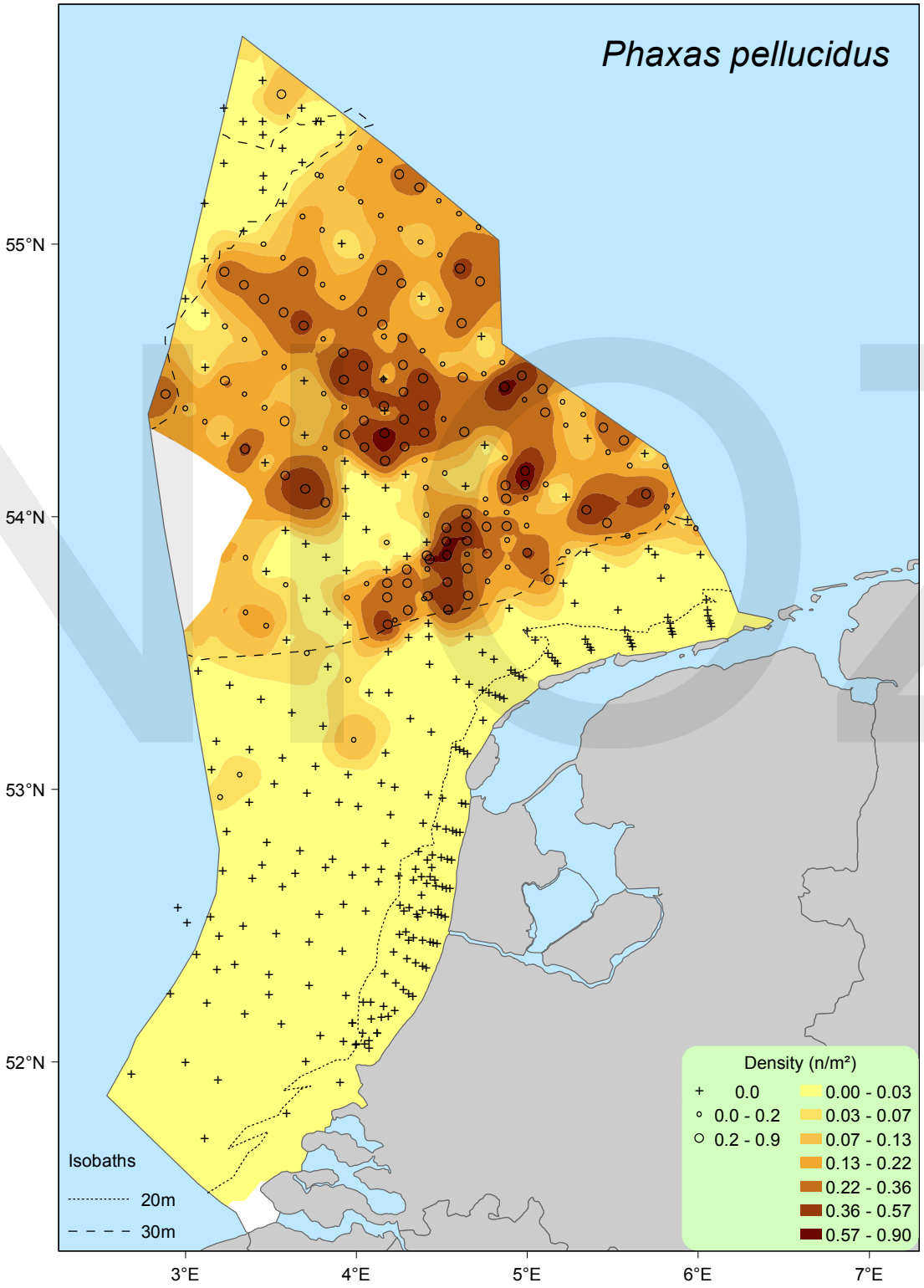

Bivalves
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Macoma balthica
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.79
Abra prismatica
0.00 - 0.01
Abra nitida
0.00 - 0.01
All absent

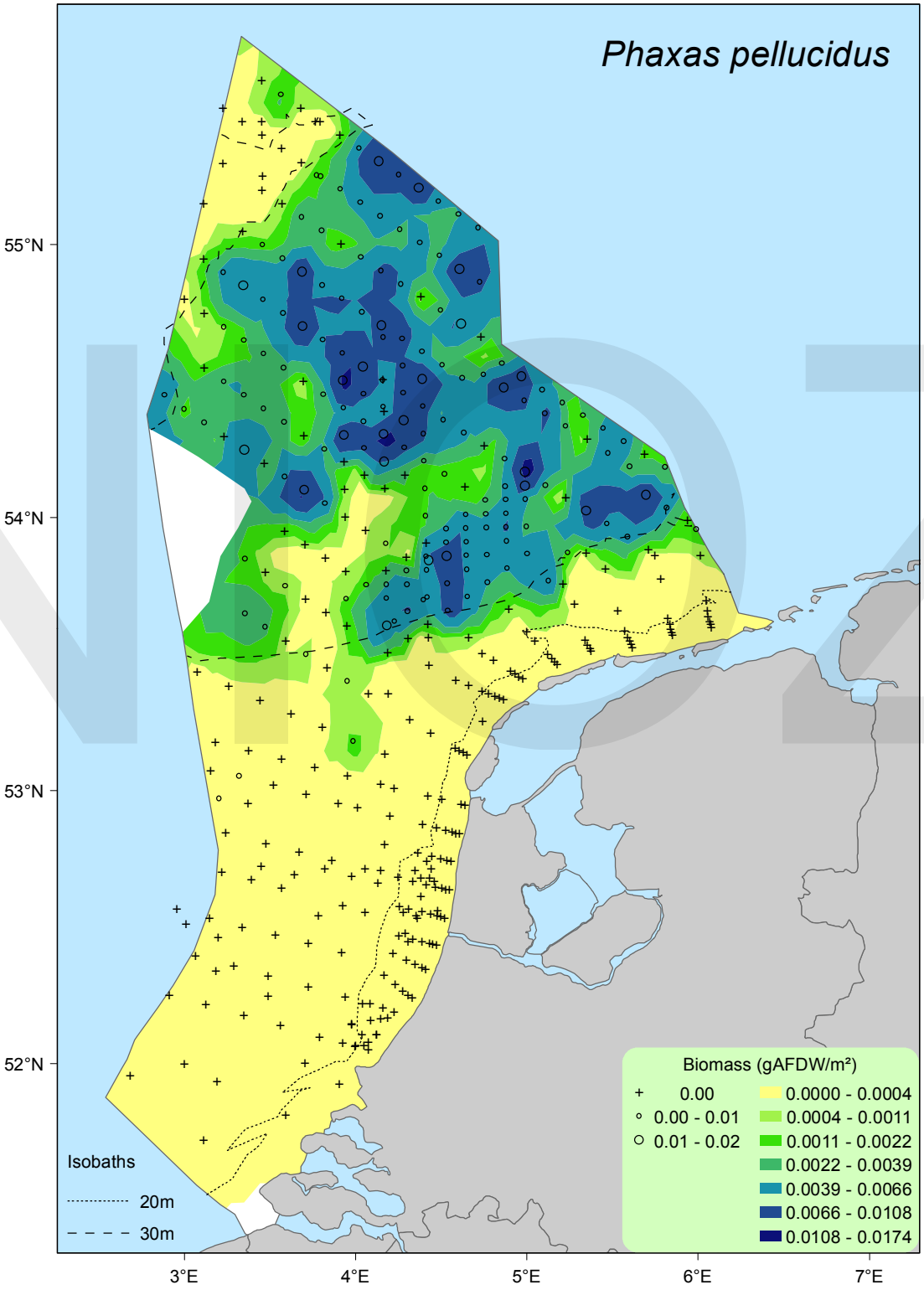

Abra alba
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 77.3
0.00 - 0.05
0.05 - 0.06
0.06 - 0.10
0.10 - 0.40
0.40 - 2.16
2.16 - 12.84
12.84 - 77.33

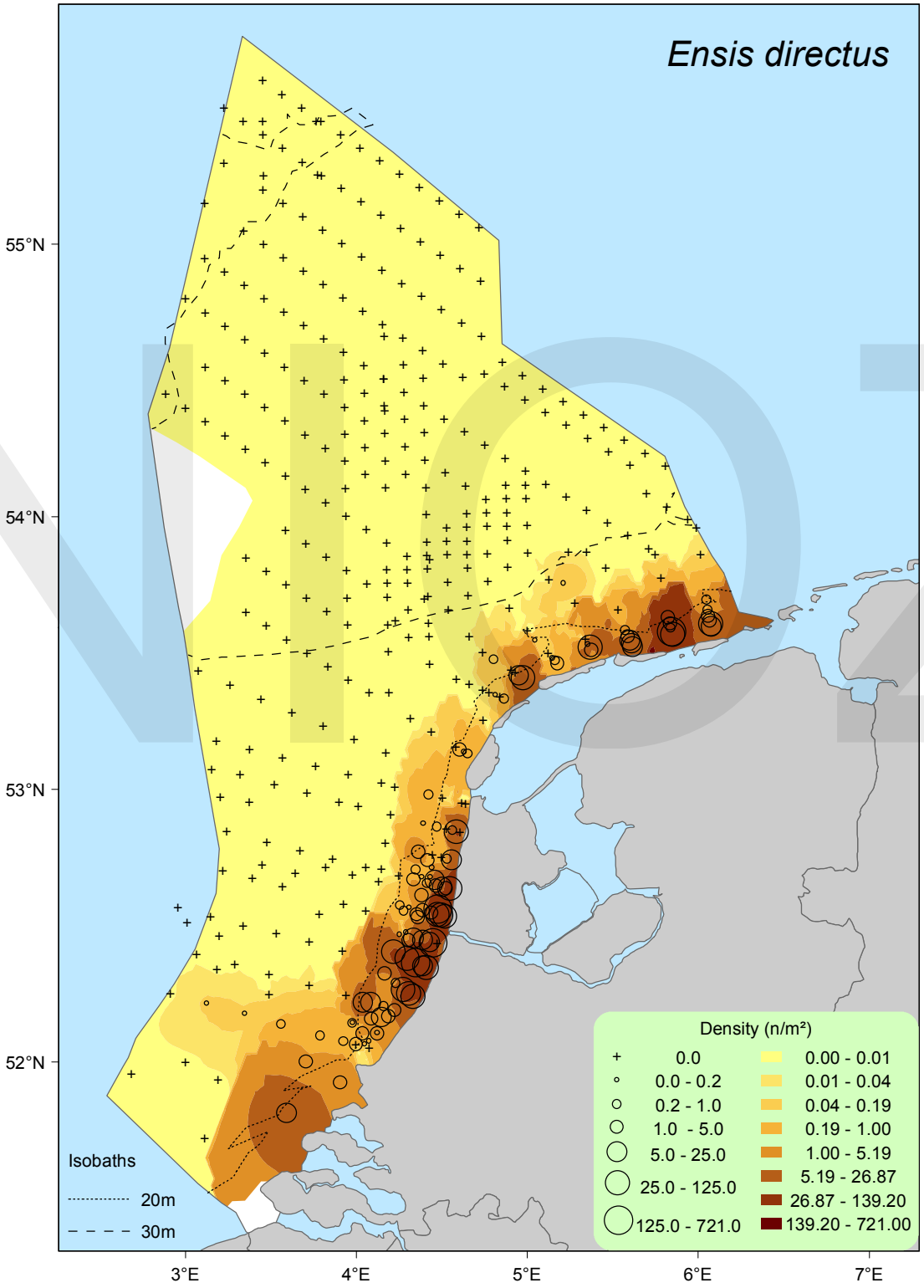

Abra alba
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.95
0.000
0.000 - 0.001
0.001 - 0.005
0.005 - 0.024
0.024 - 0.103
0.103 - 0.448
0.448 - 1.949

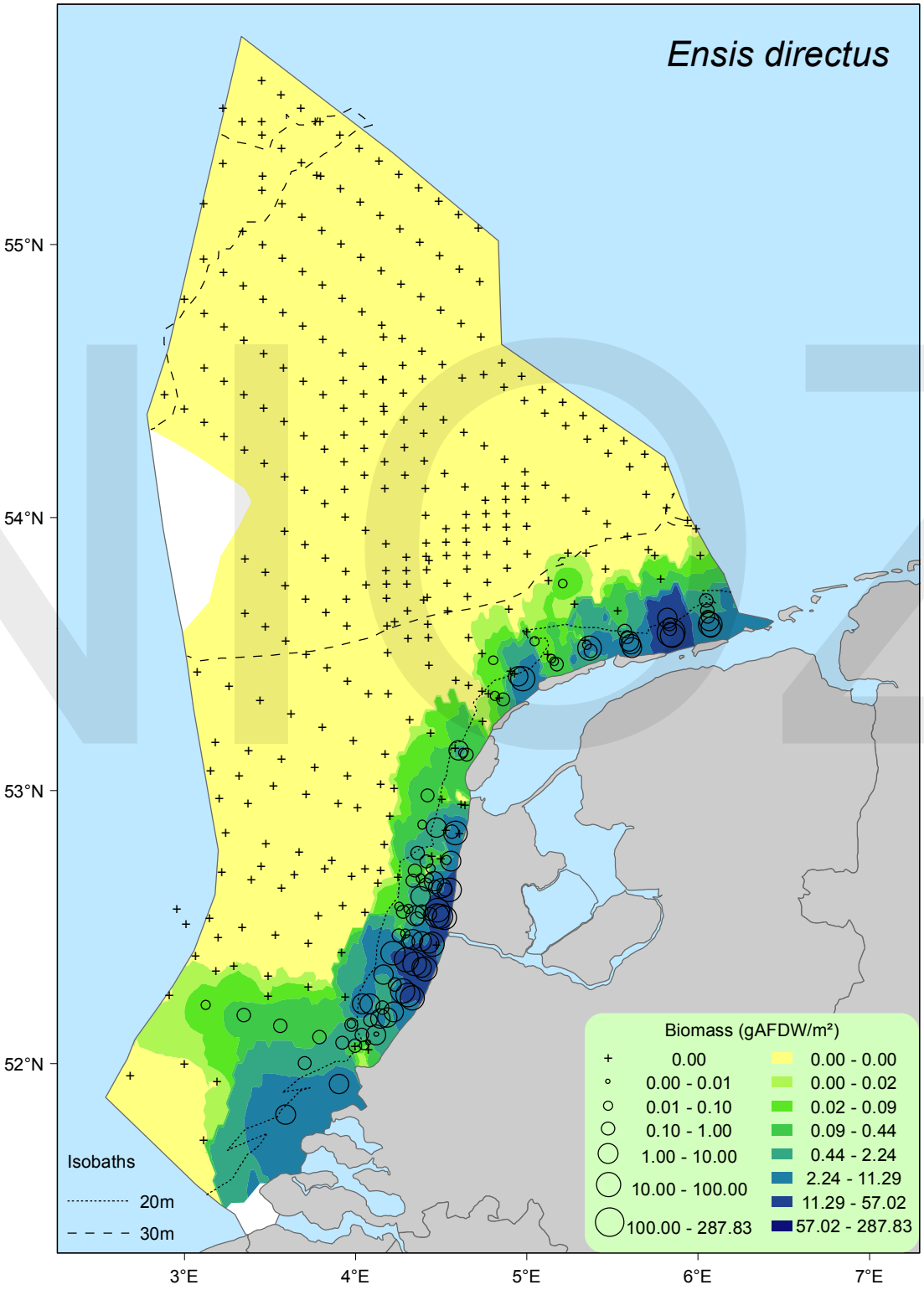

Gari fervensis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 1.1
0.00 - 0.03
0.03 - 0.05
0.05 - 0.09
0.09 - 0.16
0.16 - 0.30
0.30 - 0.57
0.57 - 1.13

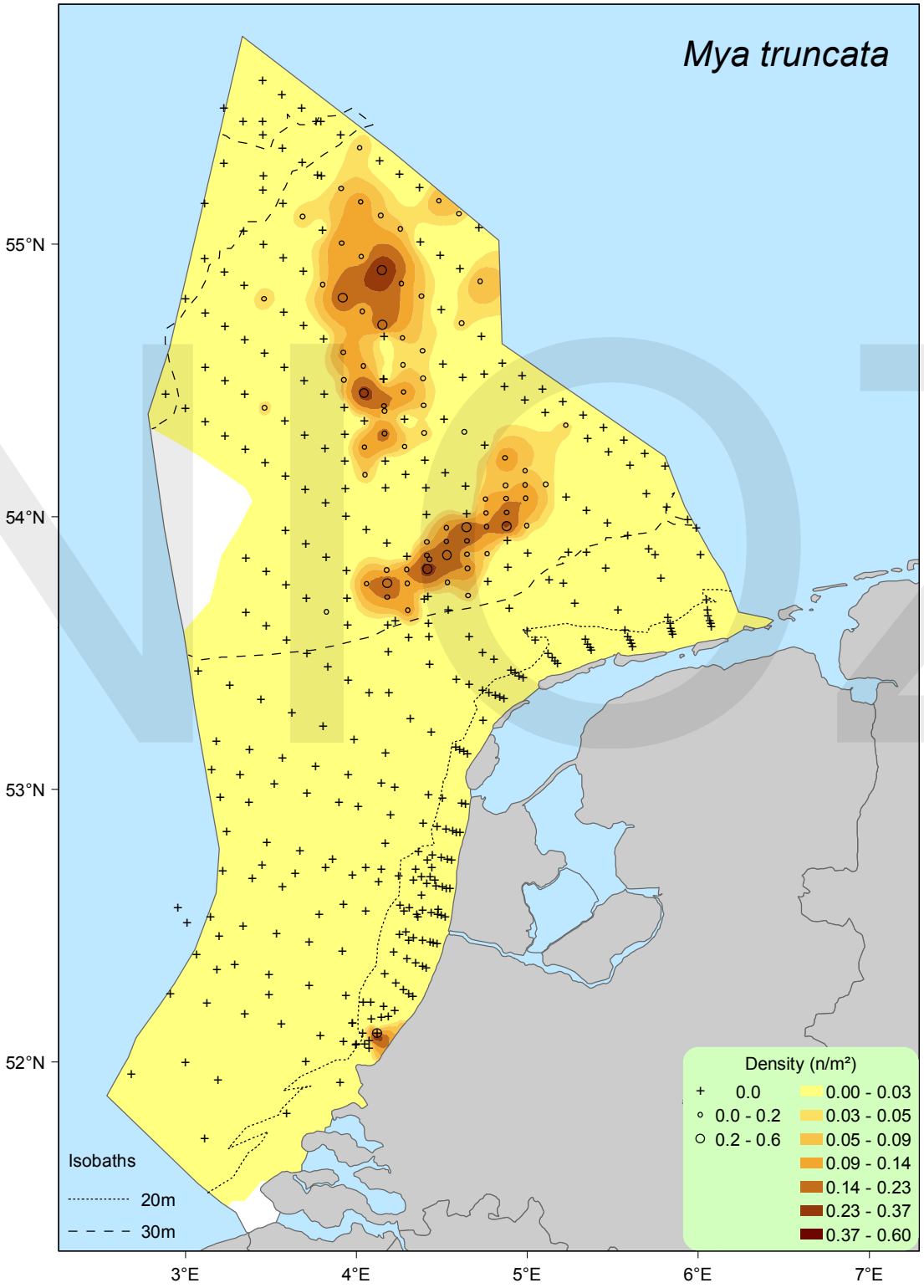

Gari fervensis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.31
0.000
0.000 - 0.001
0.001 - 0.003
0.003 - 0.010
0.010 - 0.032
0.032 - 0.099
0.099 - 0.311

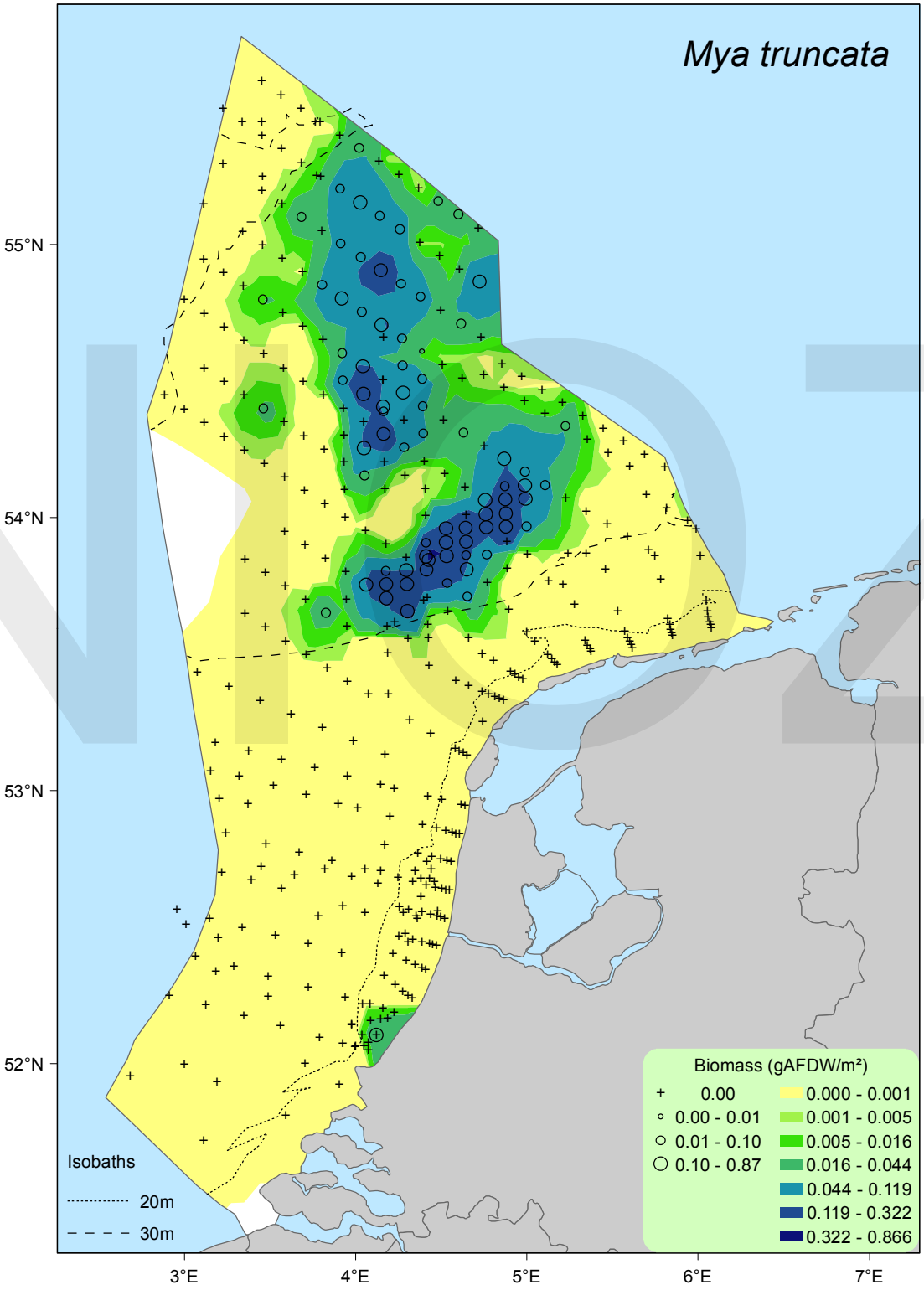

Phaxas pellucidus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.9
0.00 - 0.03
0.03 - 0.07
0.07 - 0.13
0.13 - 0.22
0.22 - 0.36
0.36 - 0.57
0.57 - 0.90

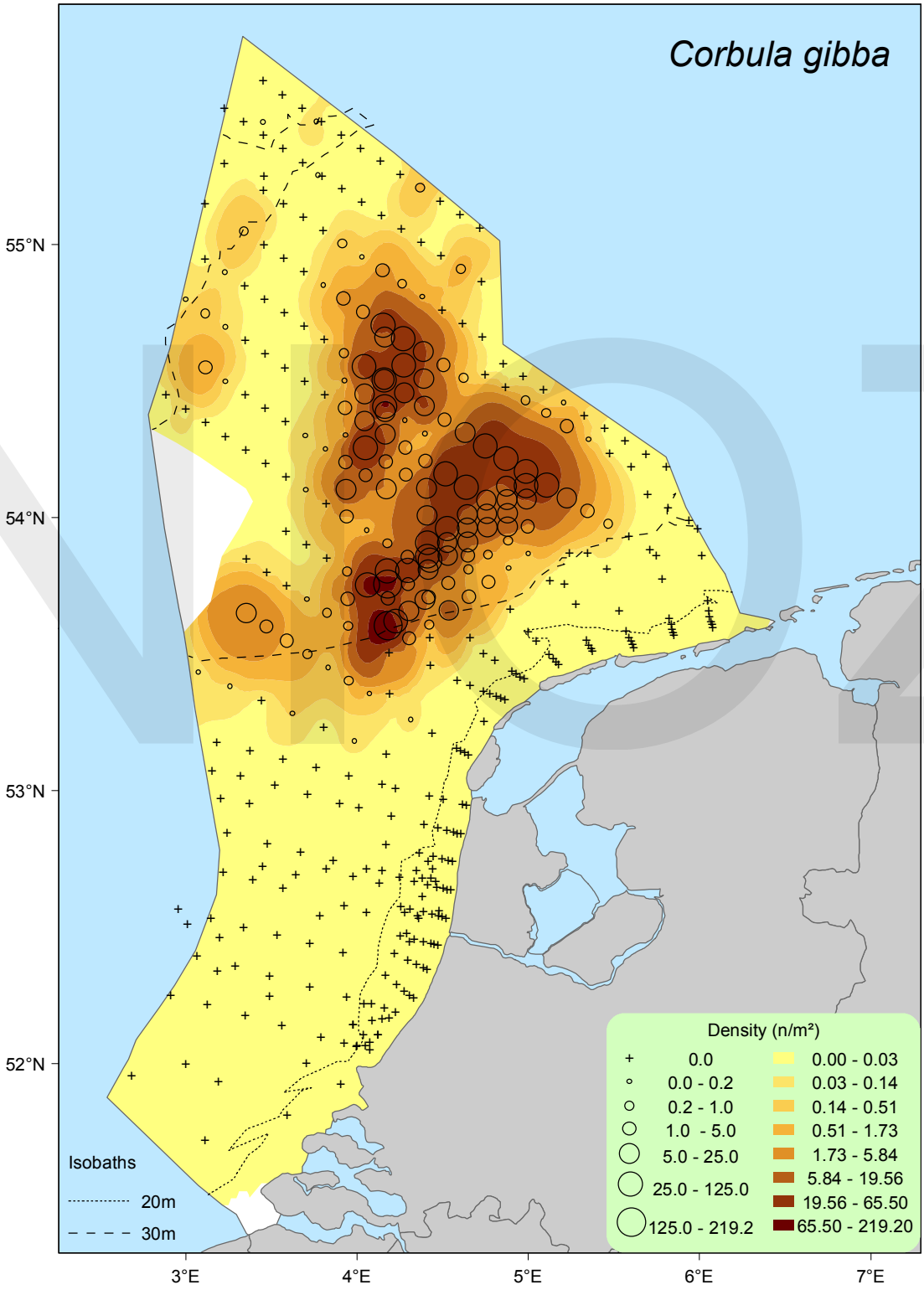

Phaxas pellucidus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.02
0.0000 - 0.0004
0.0004 - 0.0011
0.0011 - 0.0022
0.0022 - 0.0039
0.0039 - 0.0066
0.0066 - 0.0108
0.0108 - 0.0174

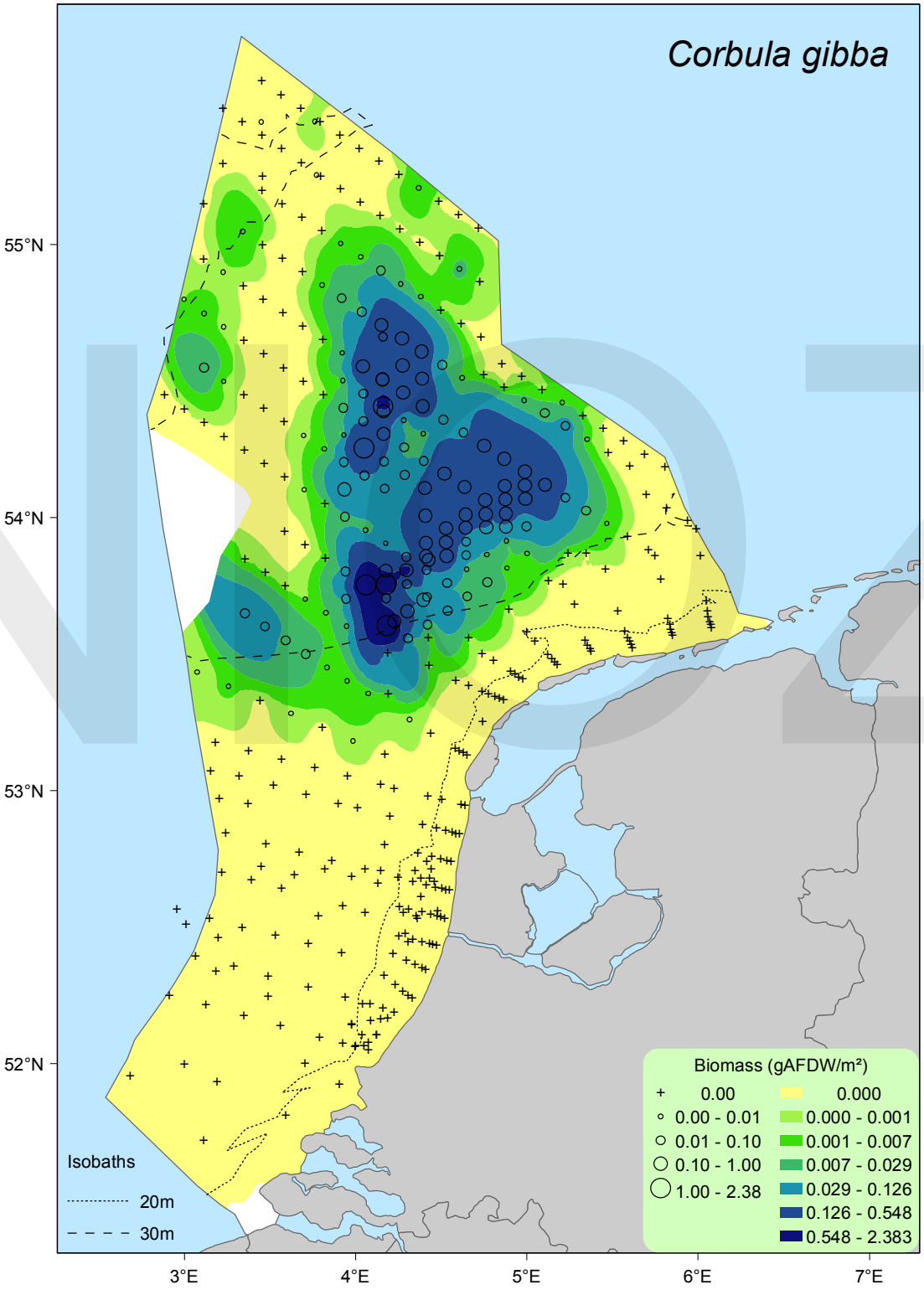

Ensis directus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 721.0
0.00 - 0.01
0.01 - 0.04
0.04 - 0.19
0.19 - 1.00
1.00 - 5.19
5.19 - 26.87
26.87 - 139.20
139.20 - 721.00

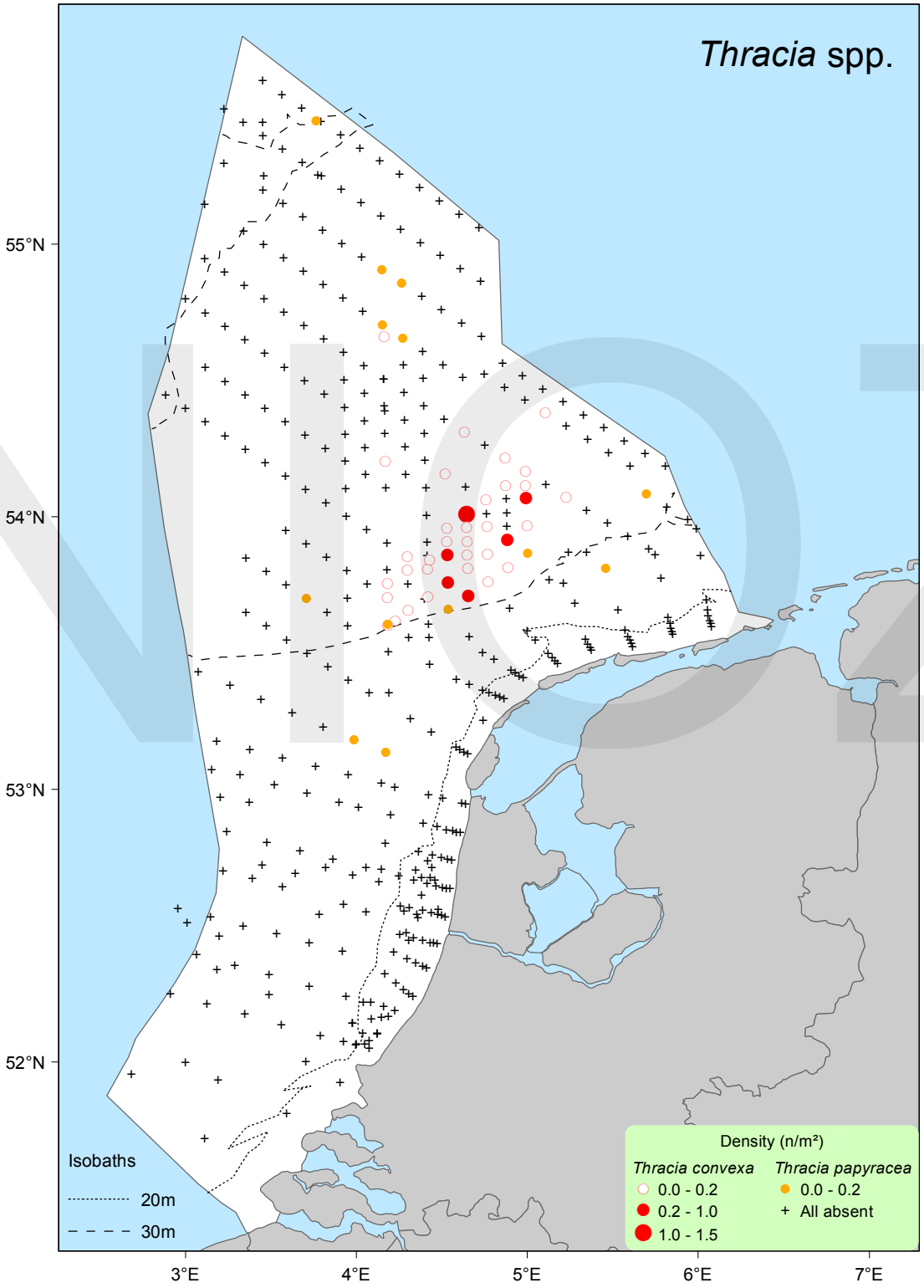

Ensis directus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 100.00
100.00 - 287.83
0.00 - 0.00
0.00 - 0.02
0.02 - 0.09
0.09 - 0.44
0.44 - 2.24
2.24 - 11.29
11.29 - 57.02
57.02 - 287.83

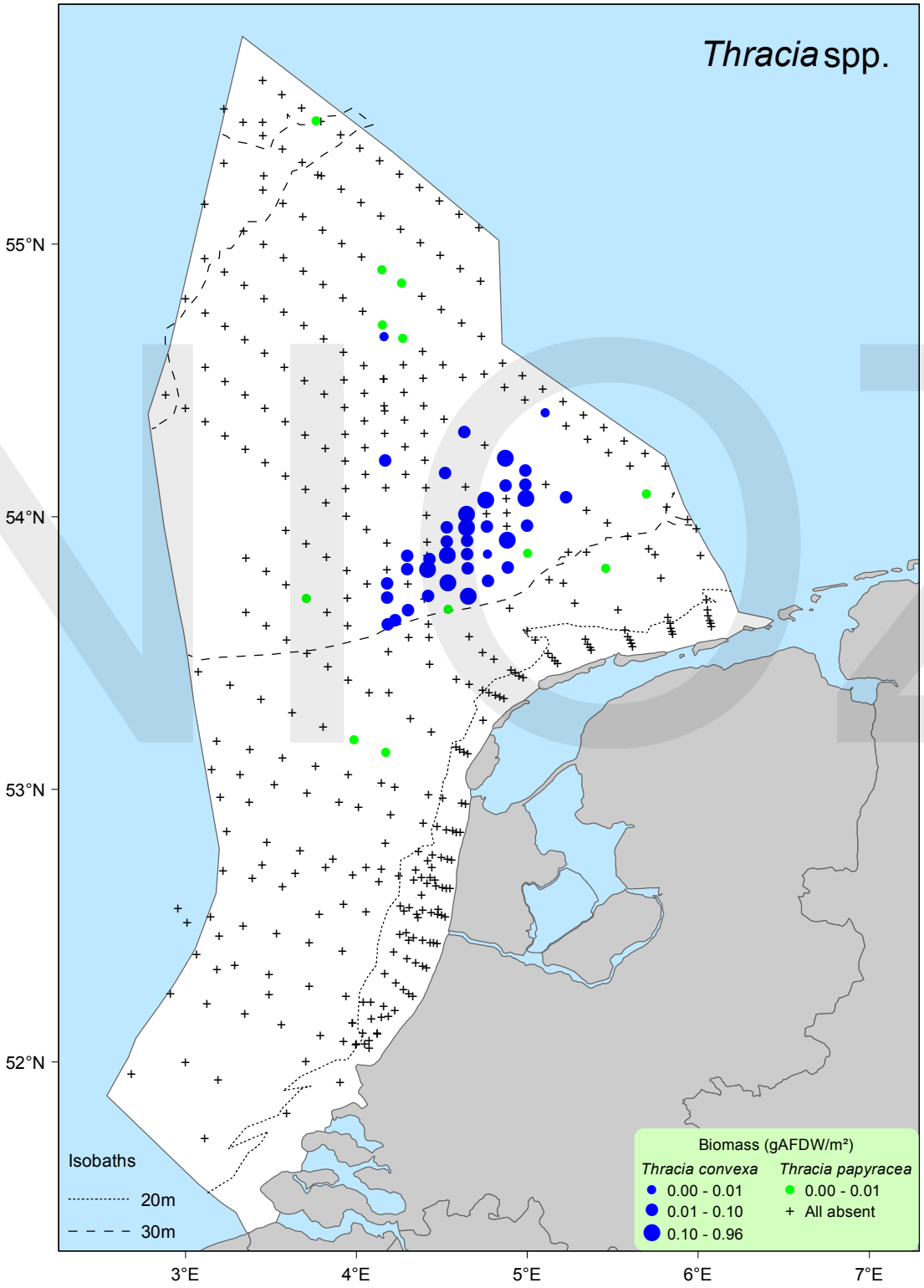

Mya truncata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.6
0.00 - 0.03
0.03 - 0.05
0.05 - 0.09
0.09 - 0.14
0.14 - 0.23
0.23 - 0.37
0.37 - 0.60

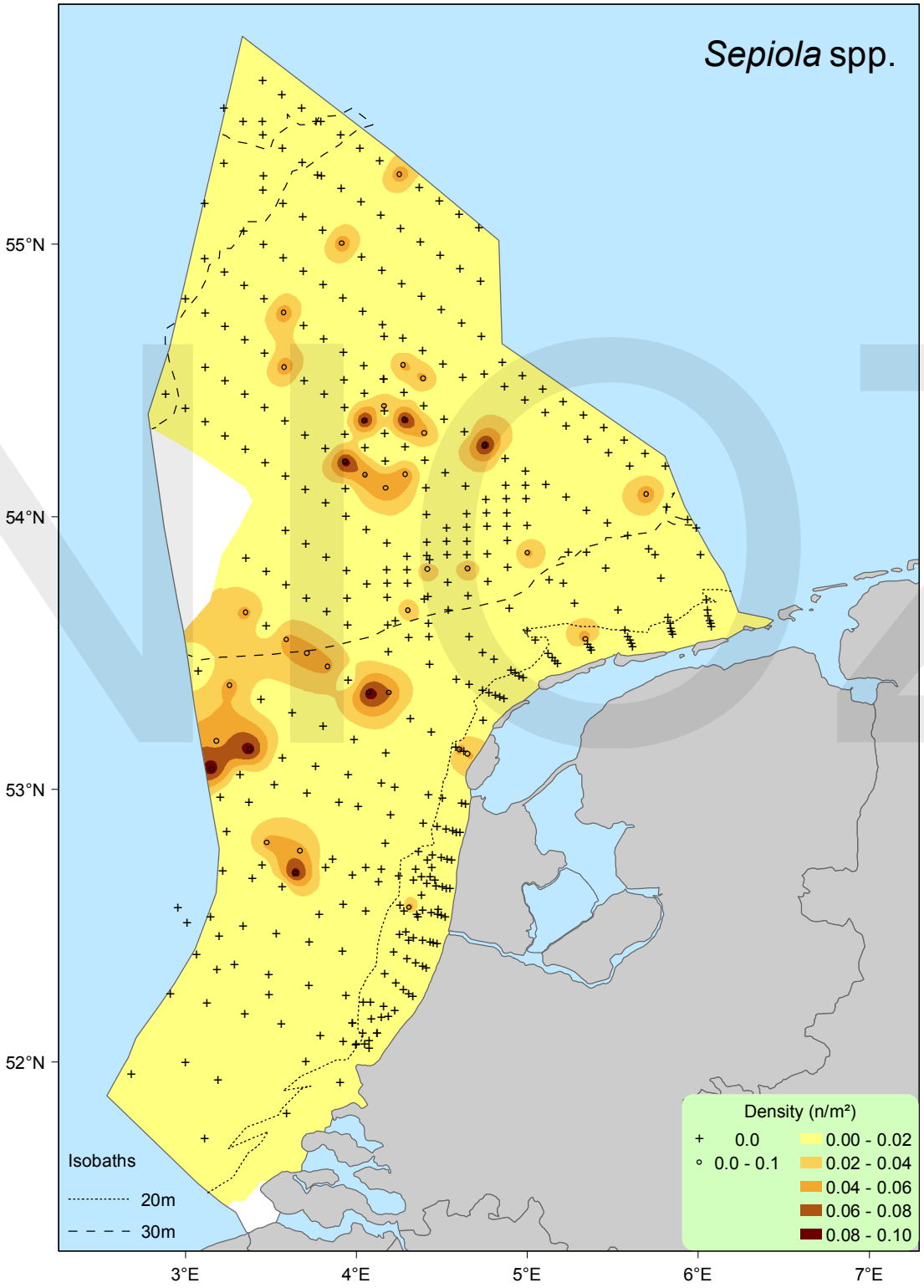

Mya truncata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.87
0.000 - 0.001
0.001 - 0.005
0.005 - 0.016
0.016 - 0.044
0.044 - 0.119
0.119 - 0.322
0.322 - 0.866

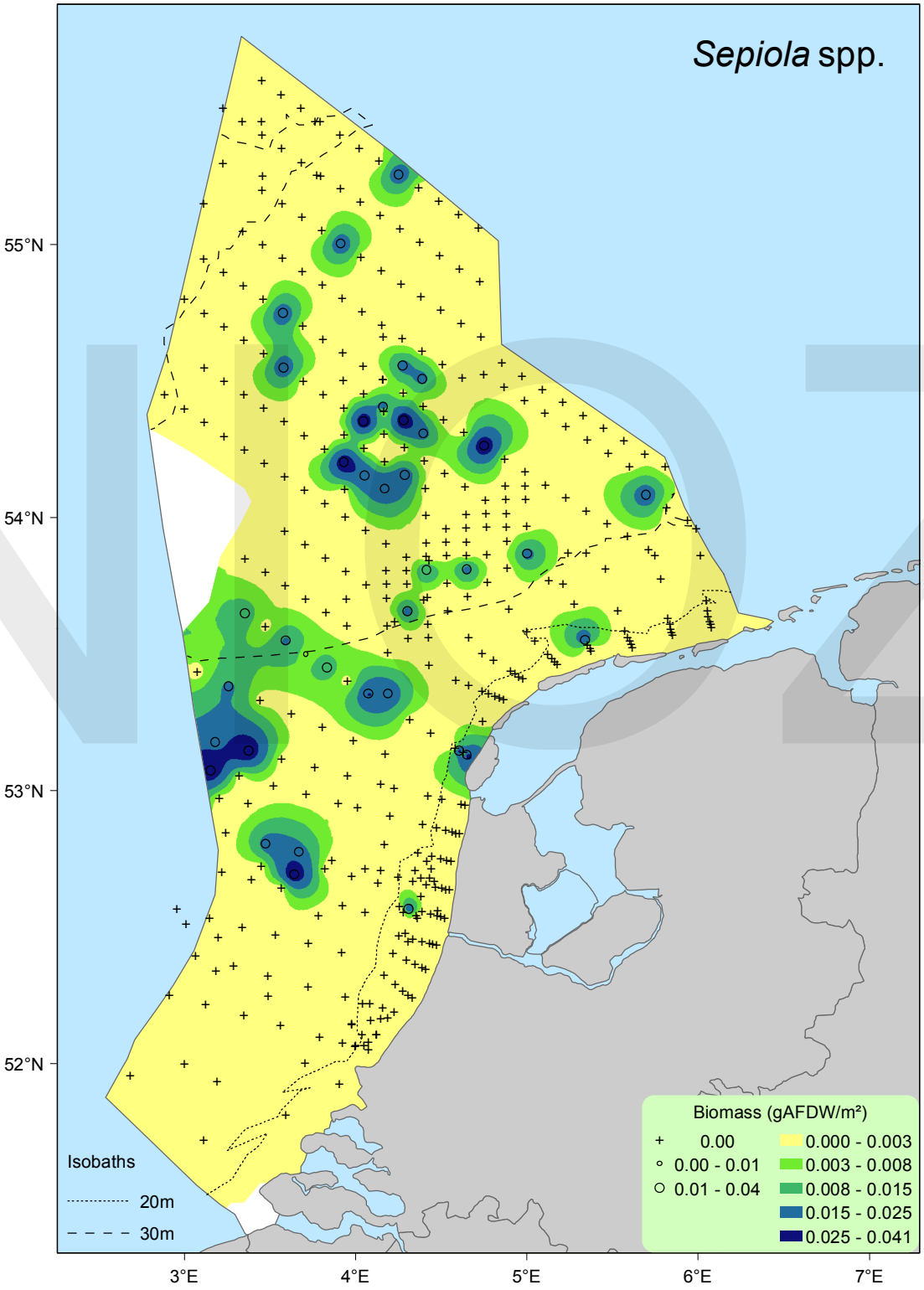

Corbula gibba
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 219.2
0.00 - 0.03
0.03 - 0.14
0.14 - 0.51
0.51 - 1.73
1.73 - 5.84
5.84 - 19.56
19.56 - 65.50
65.50 - 219.20

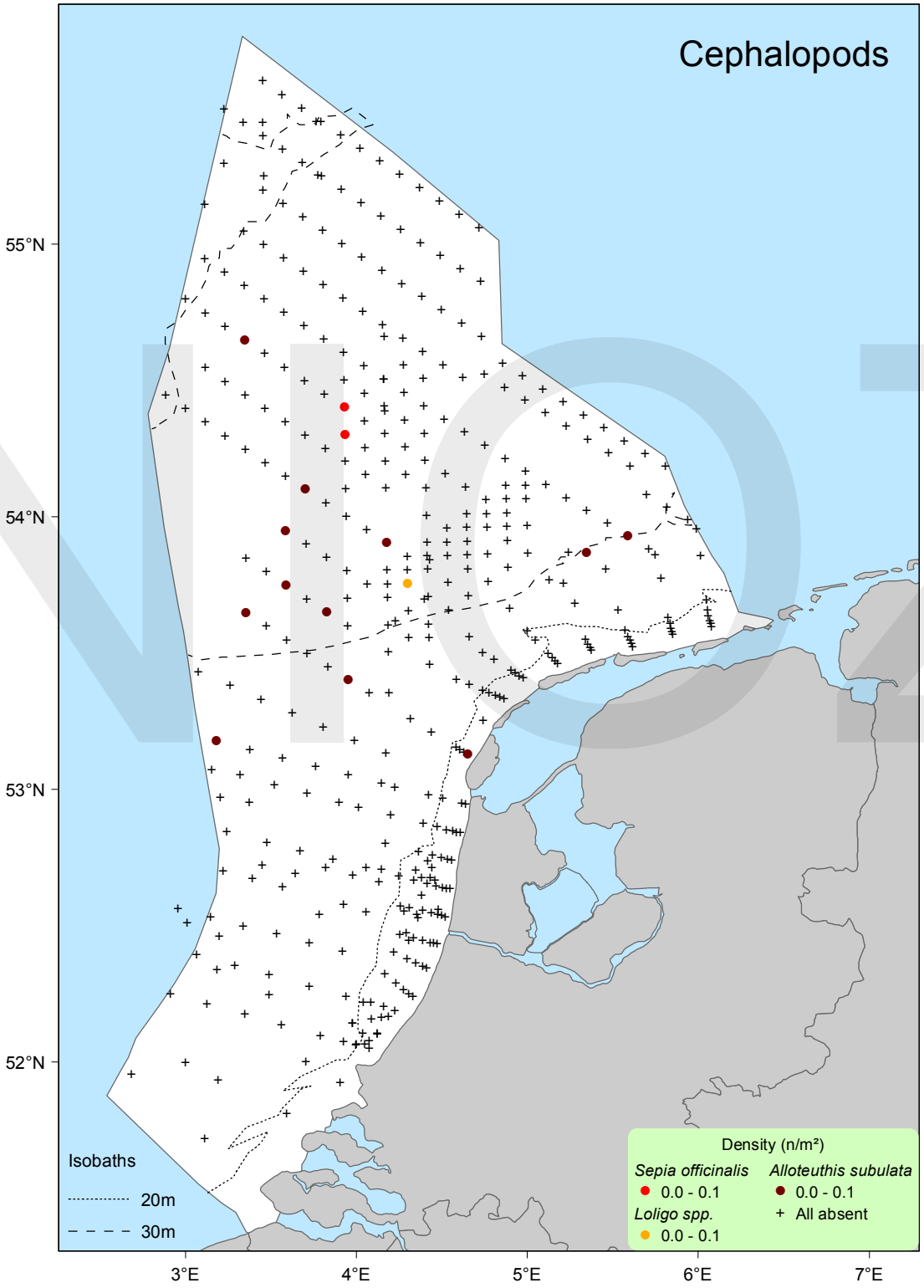

Corbula gibba
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 2.38
0.000
0.000 - 0.001
0.001 - 0.007
0.007 - 0.029
0.029 - 0.126
0.126 - 0.548
0.548 - 2.383

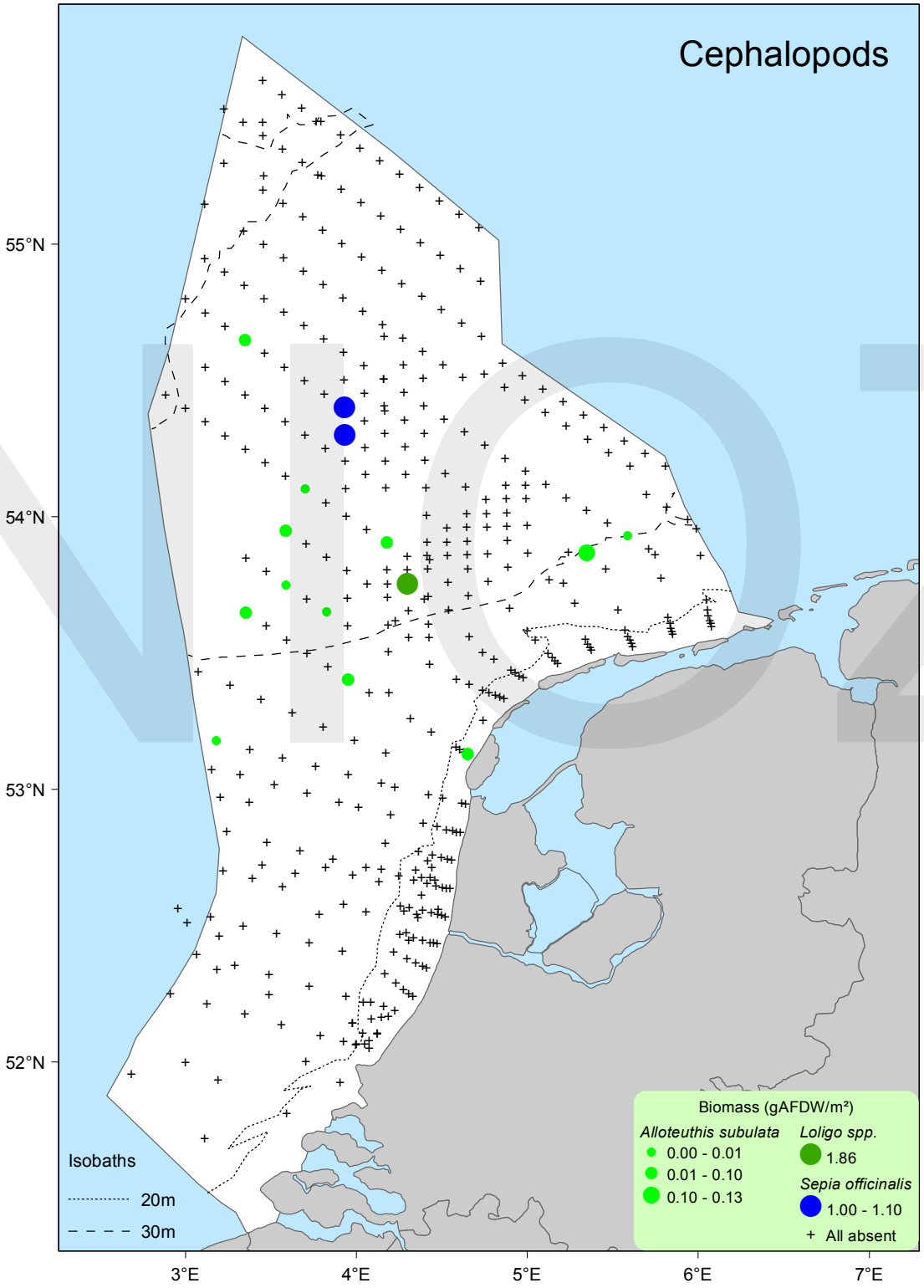

Thracia spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Thracia convexa
0.0 - 0.2
0.2 - 1.0
1.0 - 1.5
Thracia papyracea
0.0 - 0.2
All absent

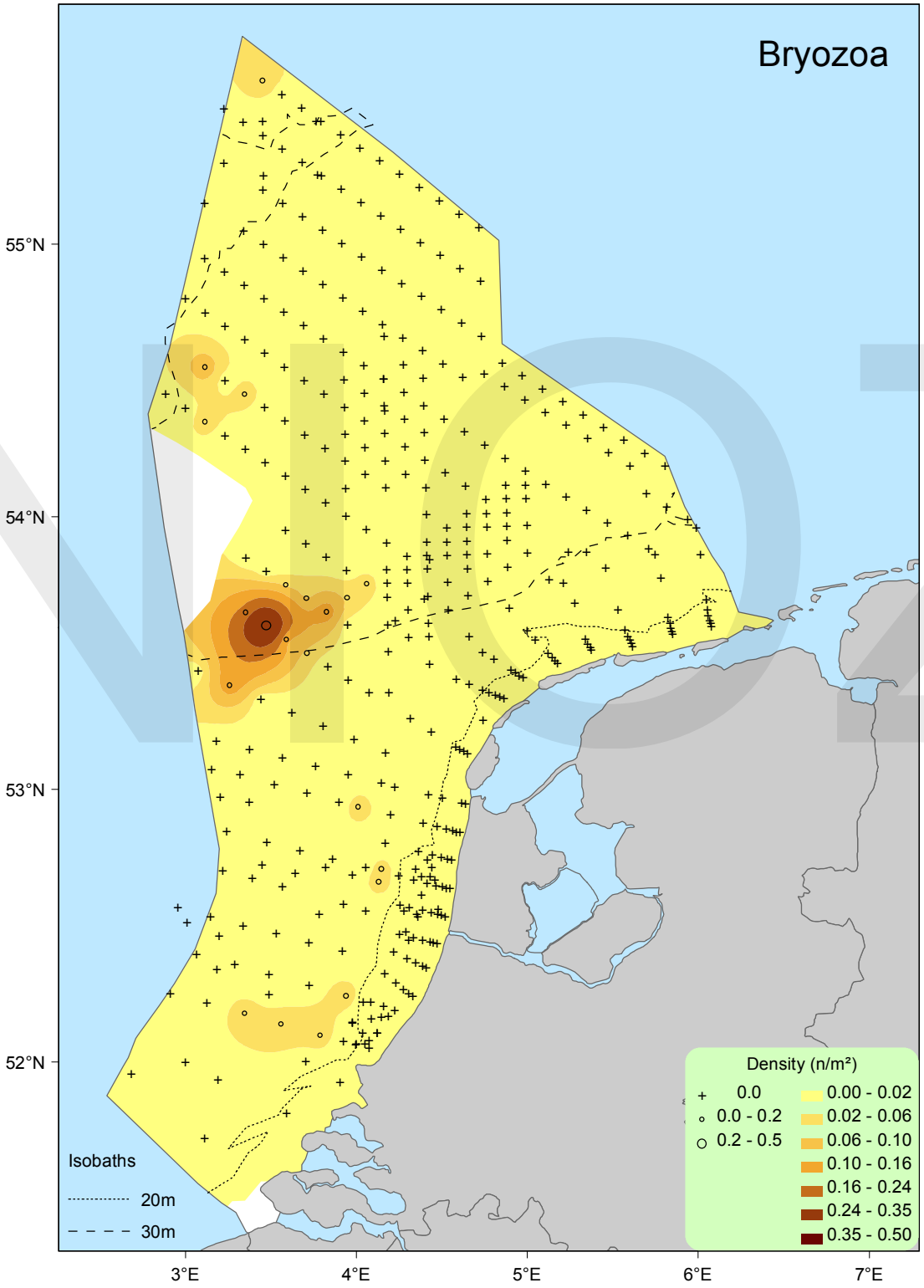

Thracia spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Thracia convexa
0.00 - 0.01
0.01 - 0.10
0.10 - 0.96
Thracia papyracea
0.00 - 0.01
All absent

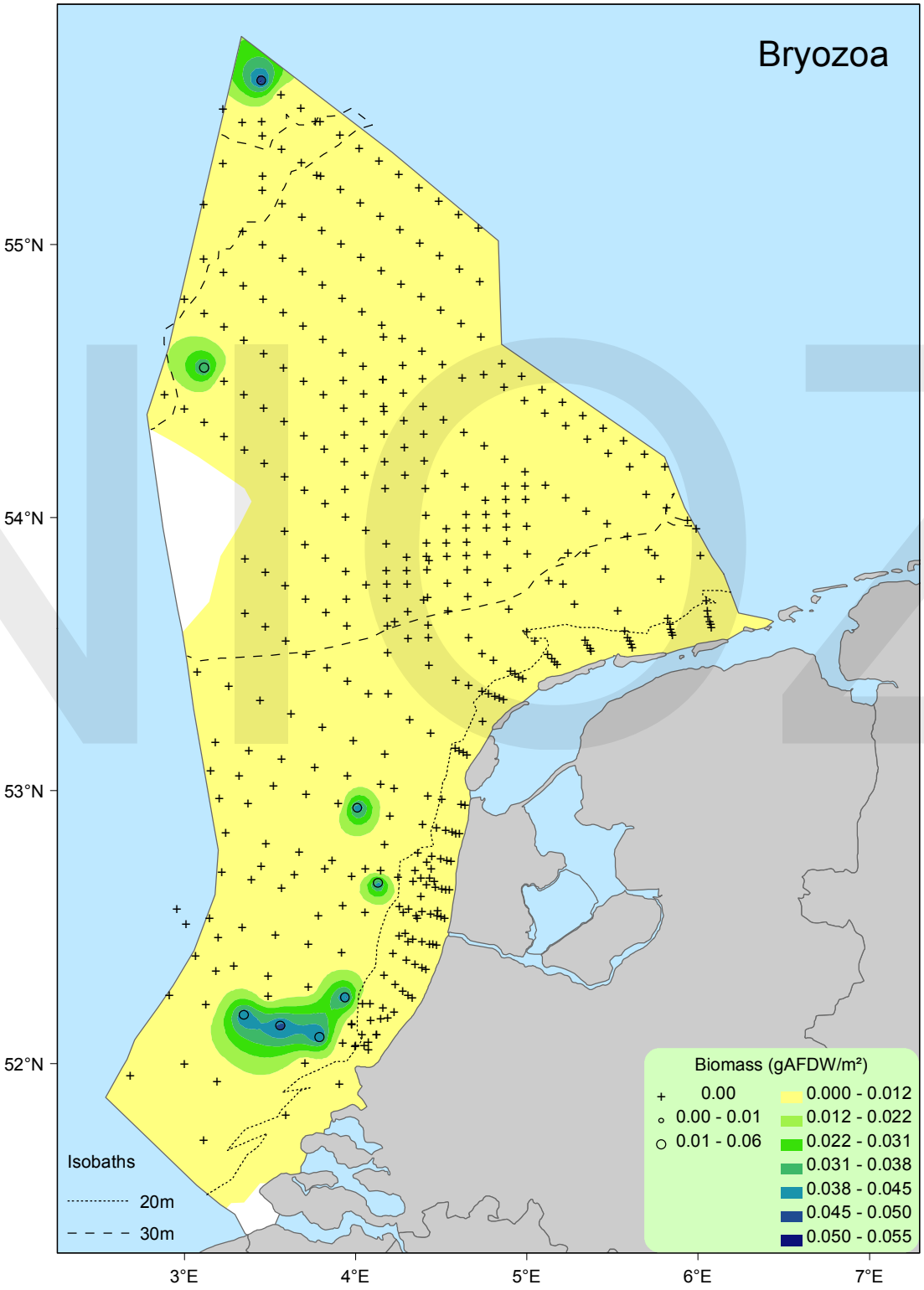

Sepiola spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.1
0.00 - 0.02
0.02 - 0.04
0.04 - 0.06
0.06 - 0.08
0.08 - 0.10

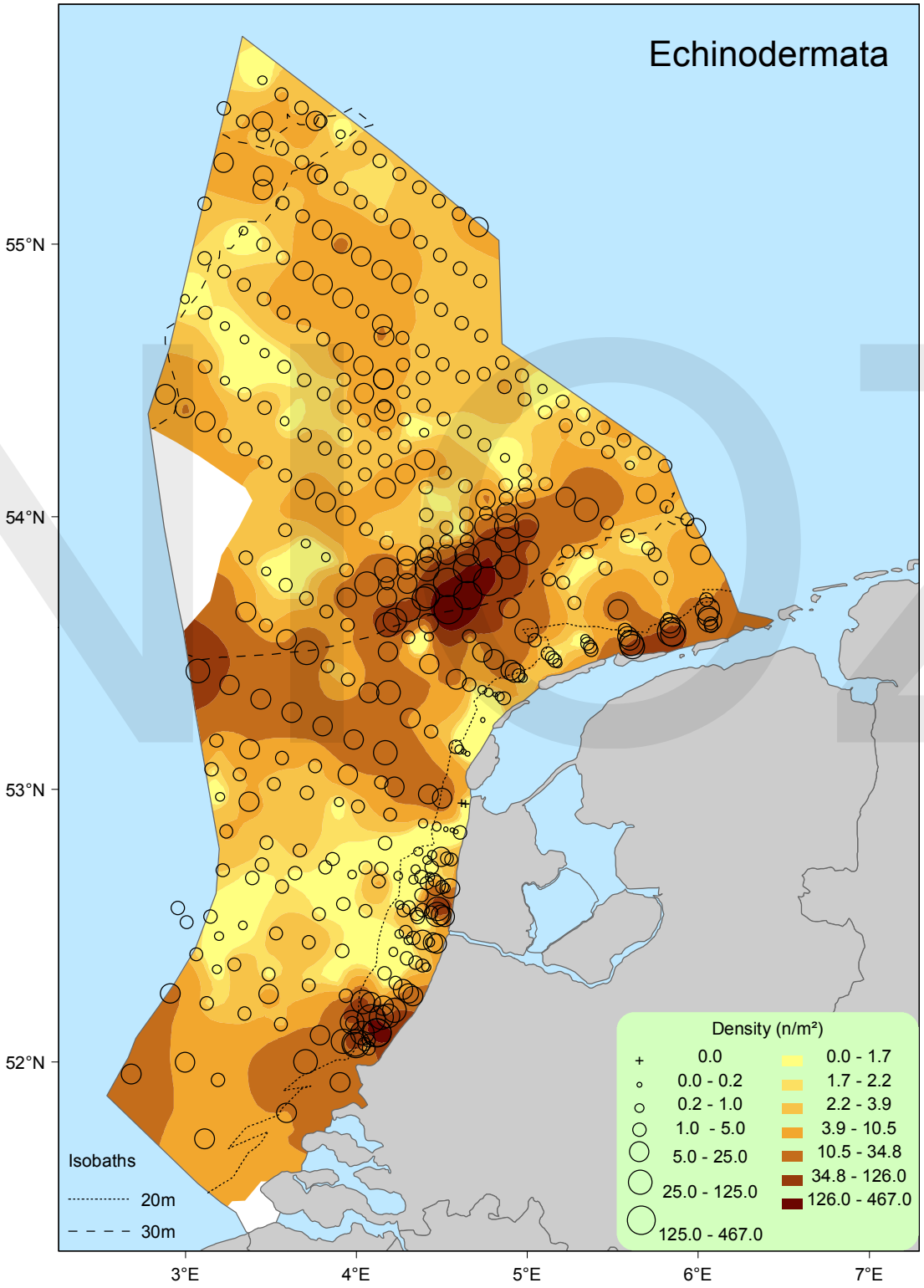

Sepiola spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.04
0.000 - 0.003
0.003 - 0.008
0.008 - 0.015
0.015 - 0.025
0.025 - 0.041

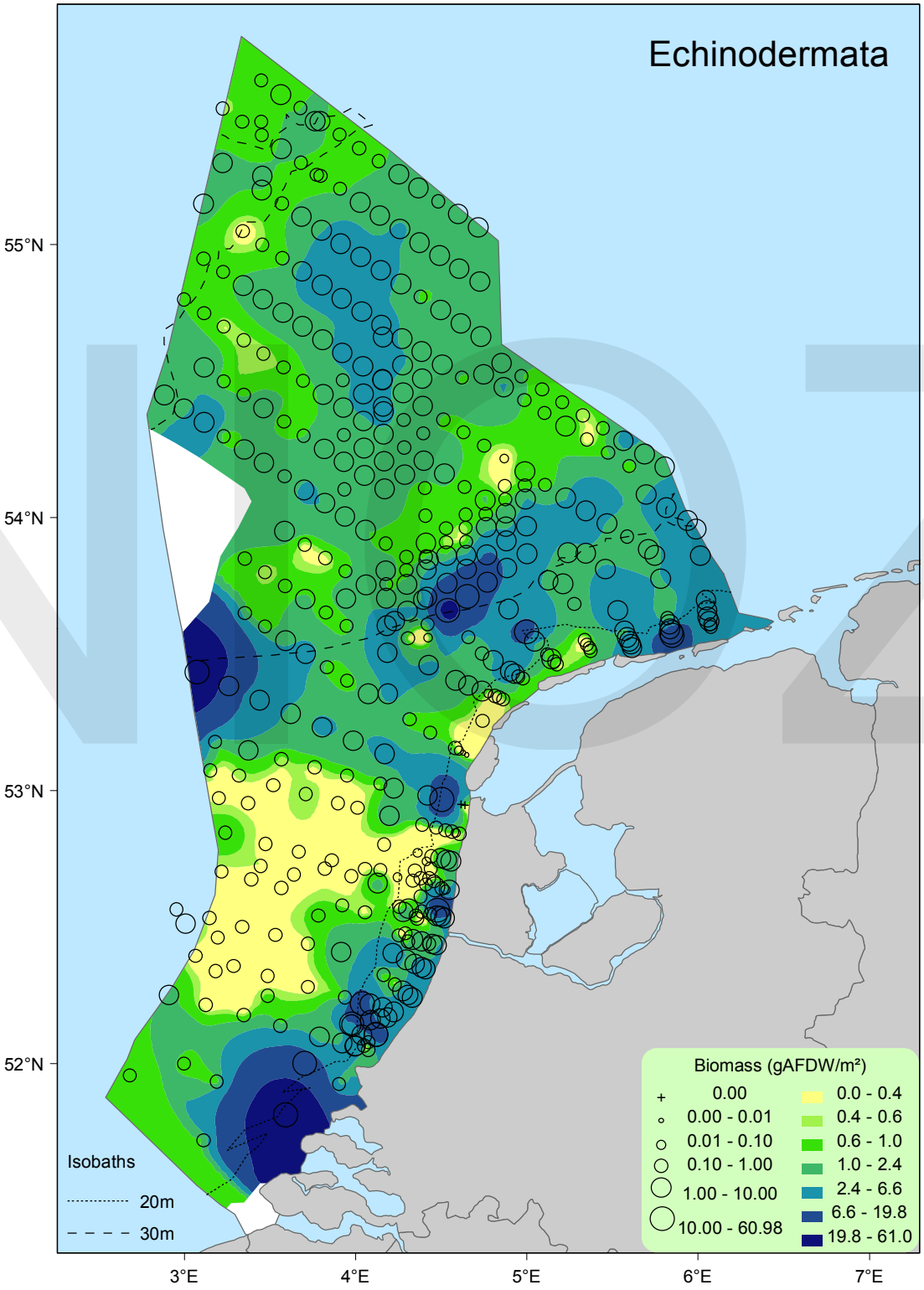

Cephalopods
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Sepia officinalis
0.0 - 0.1
Alloteuthis subulata
0.0 - 0.1
Loligo spp.
0.0 - 0.1
+ All absent

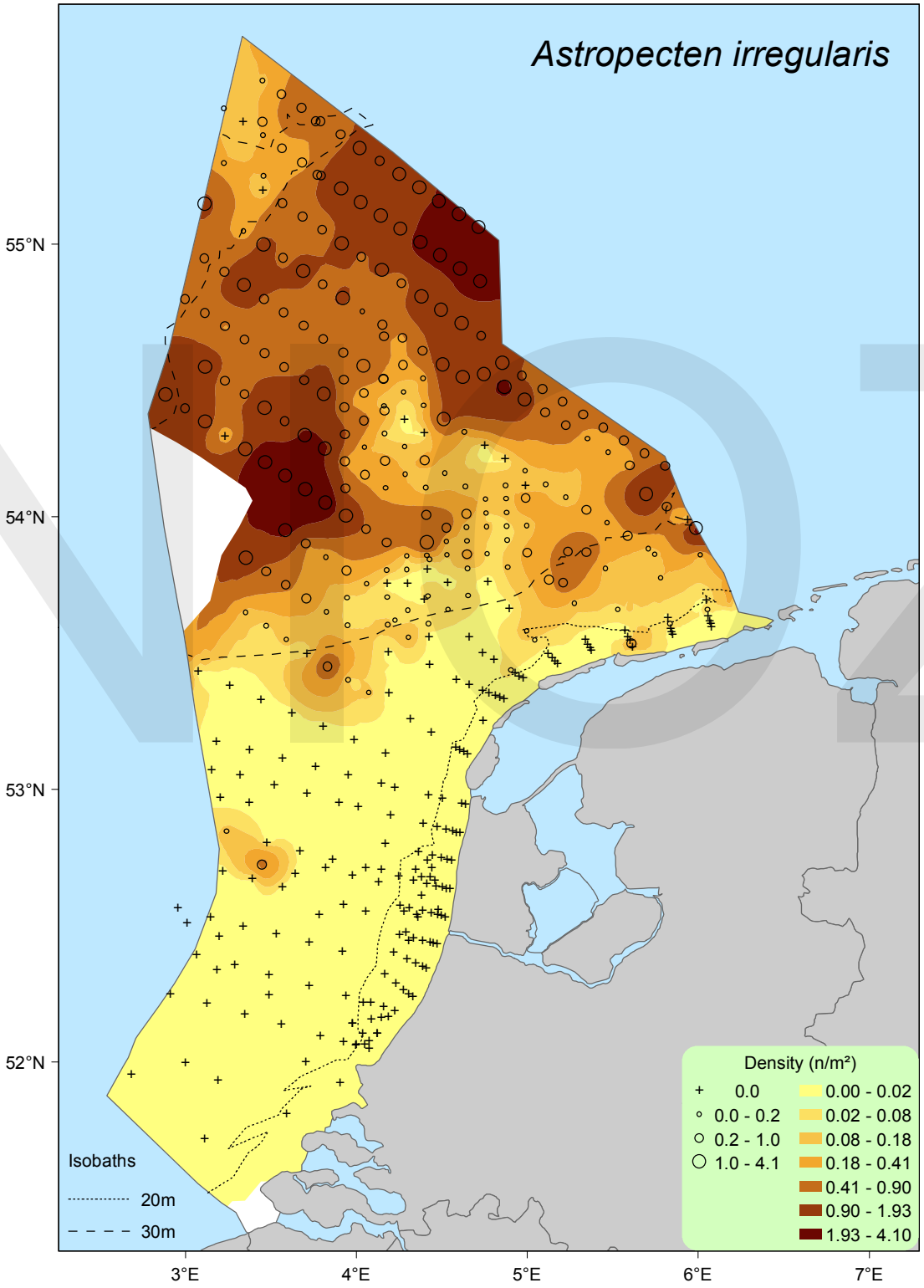

Cephalopods
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Alloteuthis subulata
0.00 - 0.01
0.01 - 0.10
0.10 - 0.13
Loligo spp.
1.86
Sepia officinalis
1.00 - 1.10
+ All absent

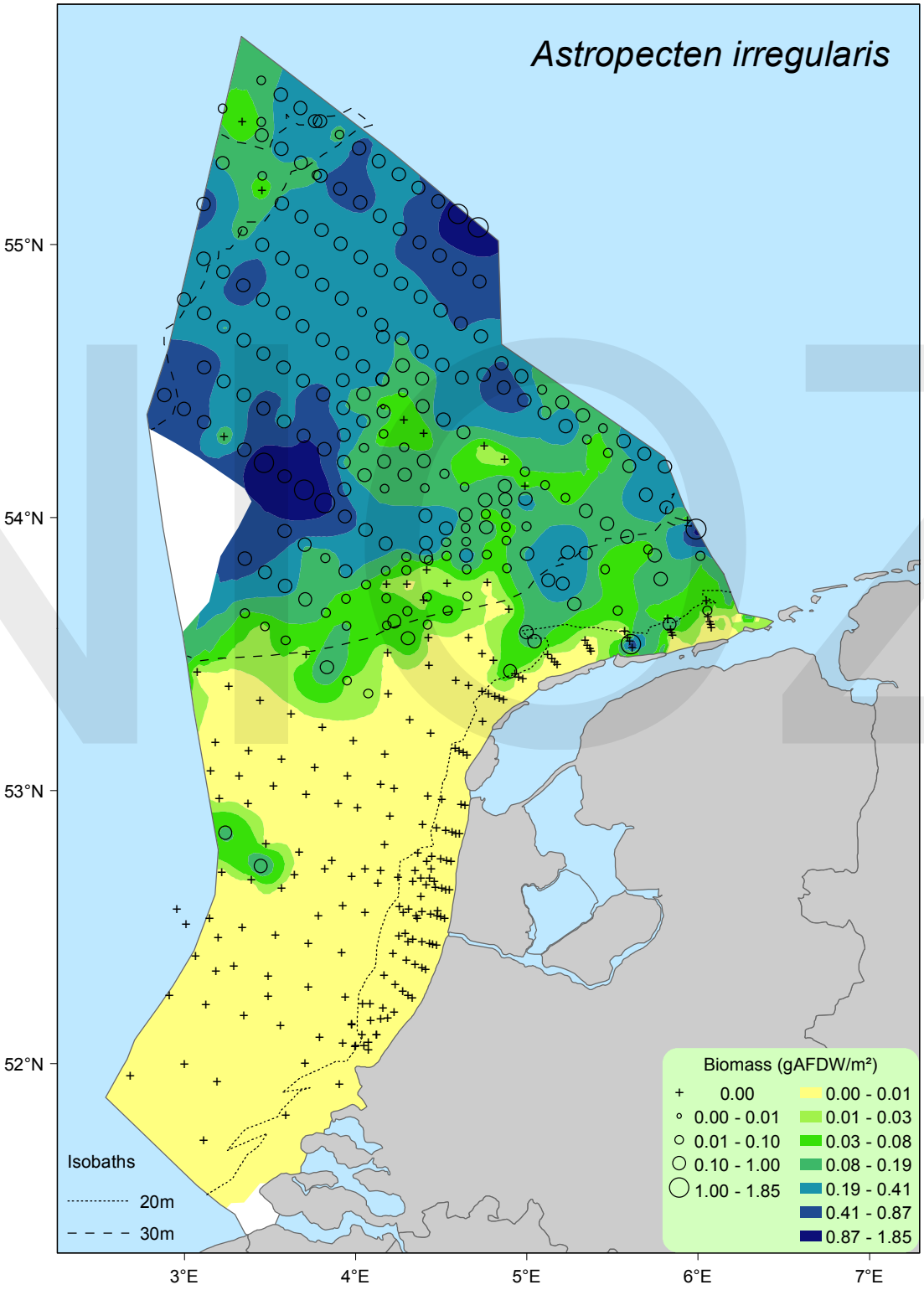

Bryozoa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.5
0.00 - 0.02
0.02 - 0.06
0.06 - 0.10
0.10 - 0.16
0.16 - 0.24
0.24 - 0.35
0.35 - 0.50

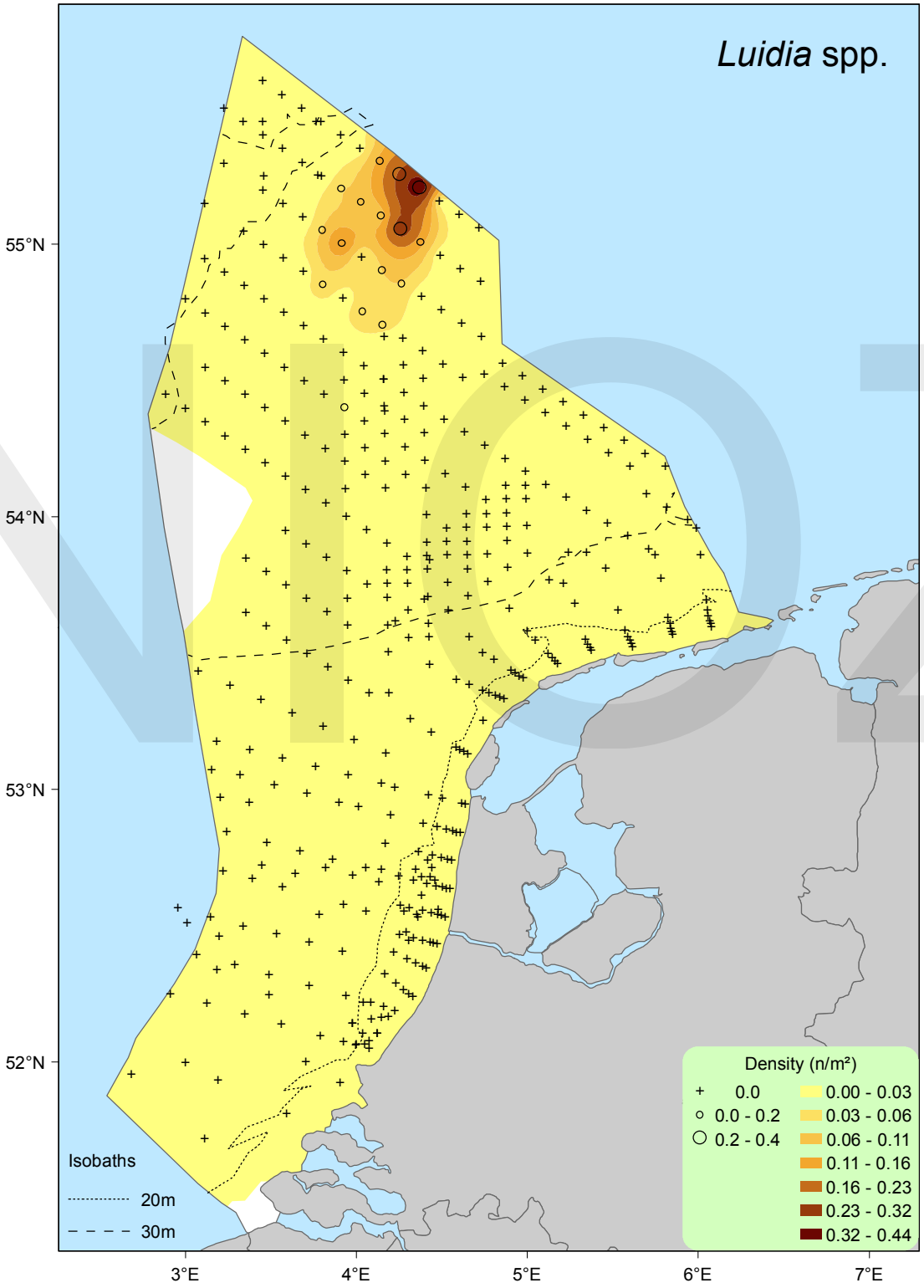

Bryozoa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.06
0.000 - 0.012
0.012 - 0.022
0.022 - 0.031
0.031 - 0.038
0.038 - 0.045
0.045 - 0.050
0.050 - 0.055

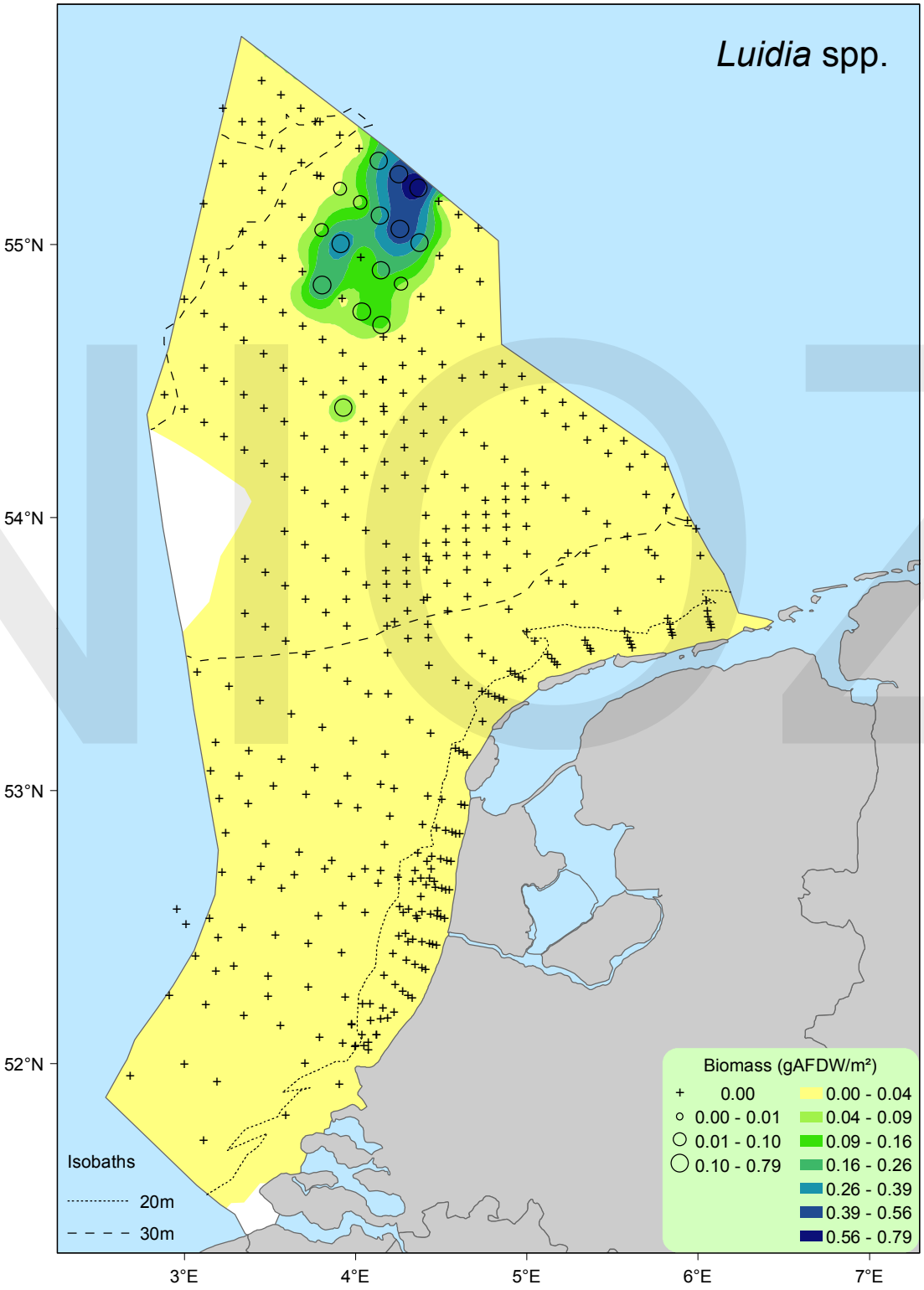

Echinodermata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 467.0
0.0 - 1.7
1.7 - 2.2
2.2 - 3.9
3.9 - 10.5
10.5 - 34.8
34.8 - 126.0
126.0 - 467.0

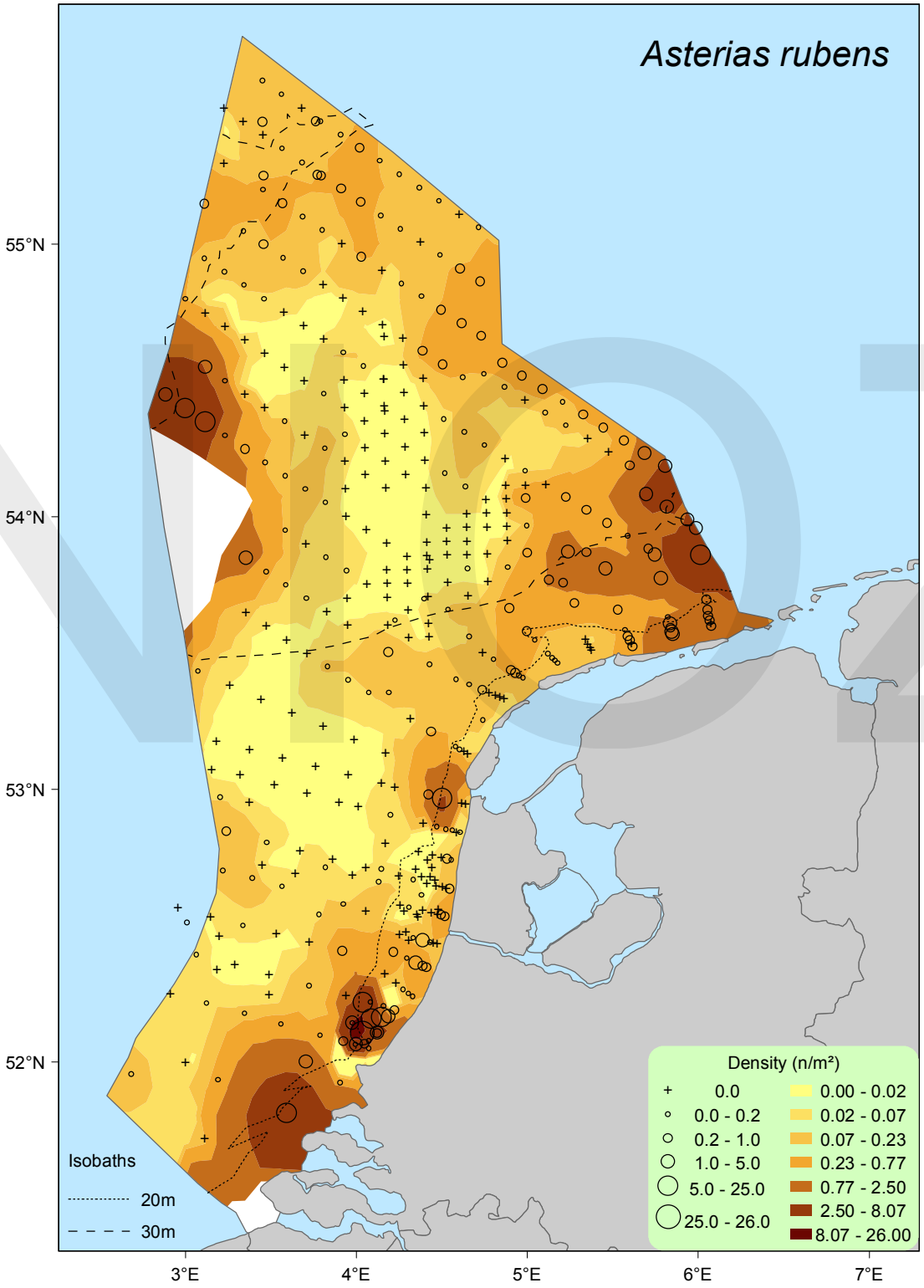

Echinodermata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 60.98
0.0 - 0.4
0.4 - 0.6
0.6 - 1.0
1.0 - 2.4
2.4 - 6.6
6.6 - 19.8
19.8 - 61.0

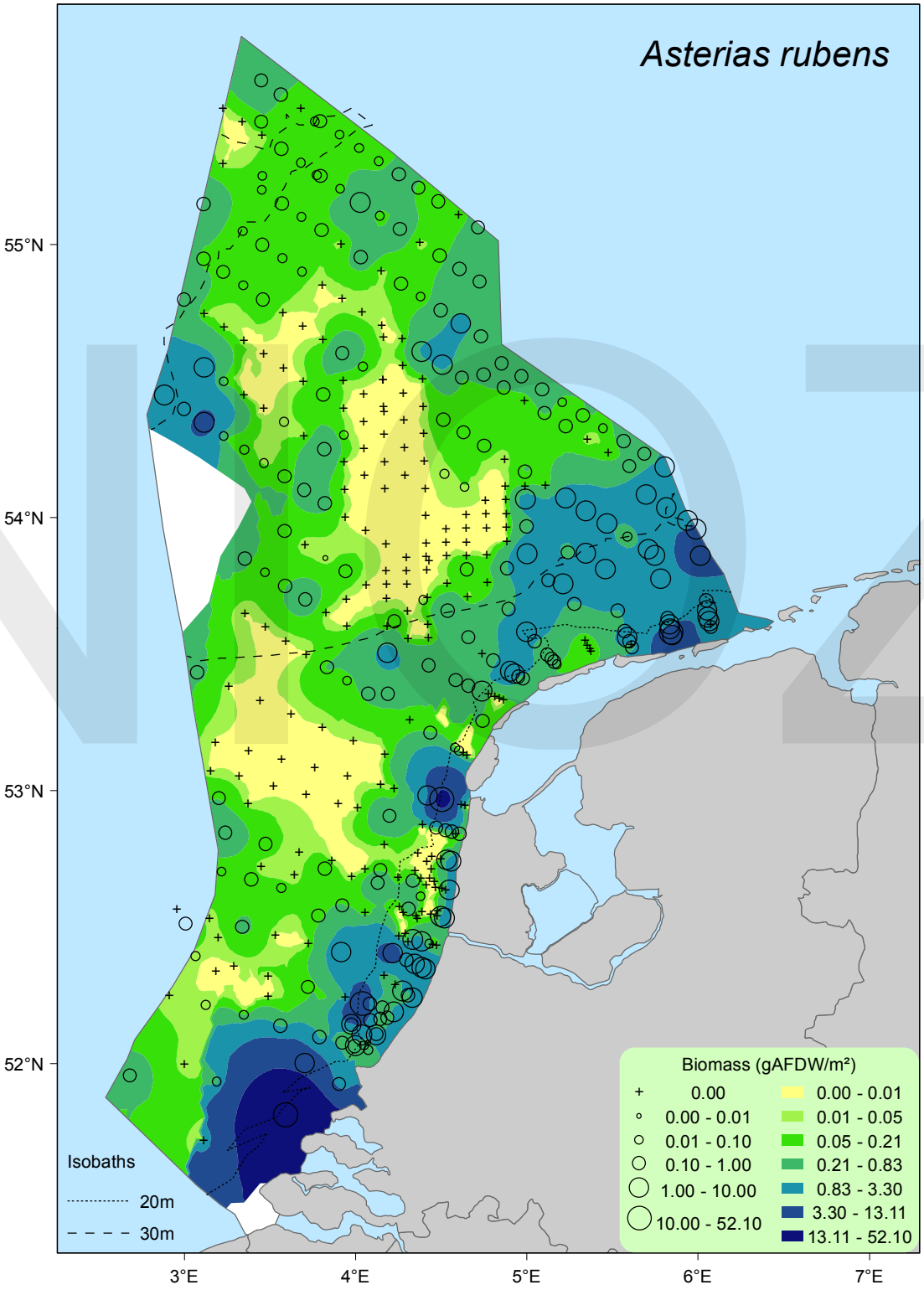

Astropecten irregularis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 4.1
0.00 - 0.02
0.02 - 0.08
0.08 - 0.18
0.18 - 0.41
0.41 - 0.90
0.90 - 1.93
1.93 - 4.10

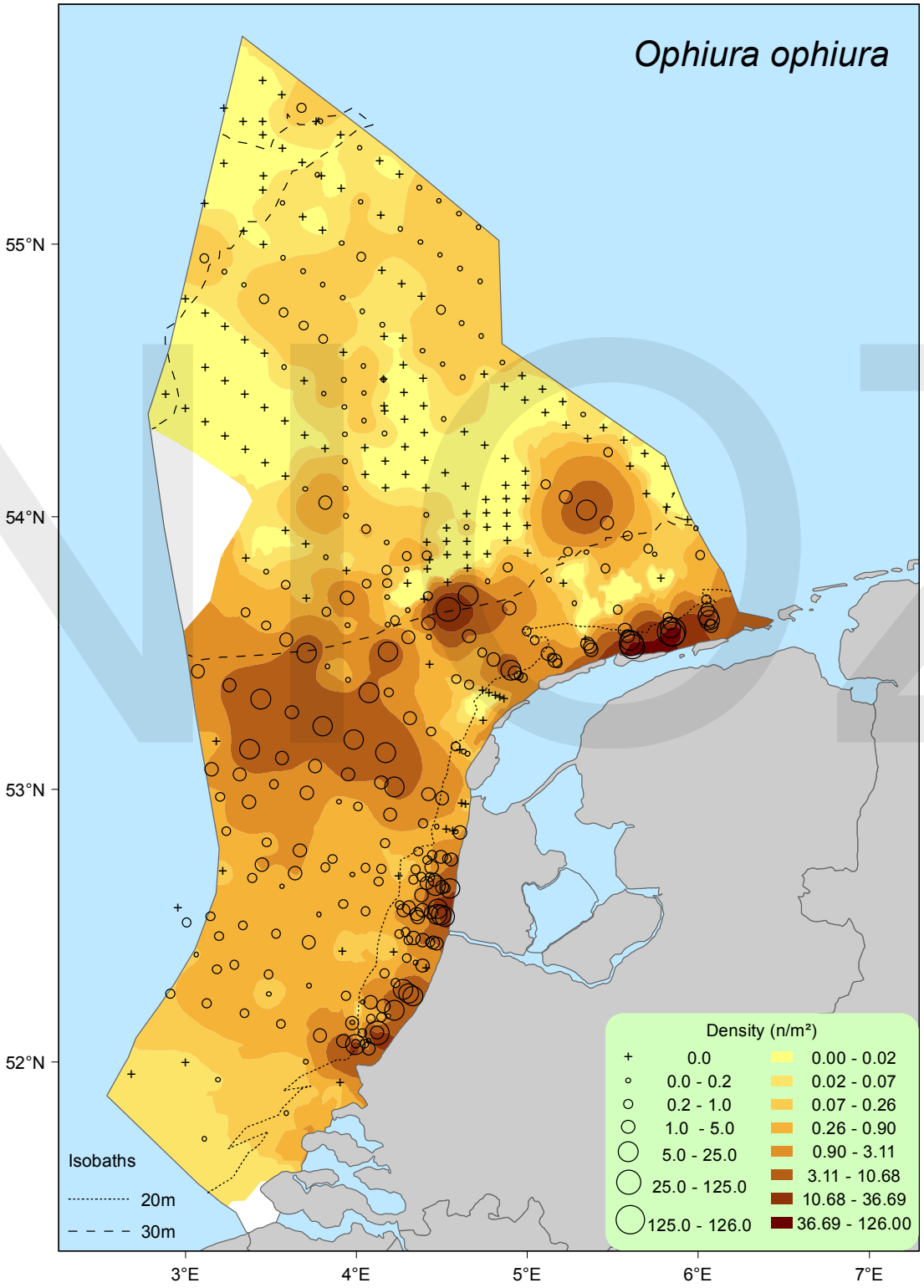

Astropecten irregularis
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.85
0.00 - 0.01
0.01 - 0.03
0.03 - 0.08
0.08 - 0.19
0.19 - 0.41
0.41 - 0.87
0.87 - 1.85

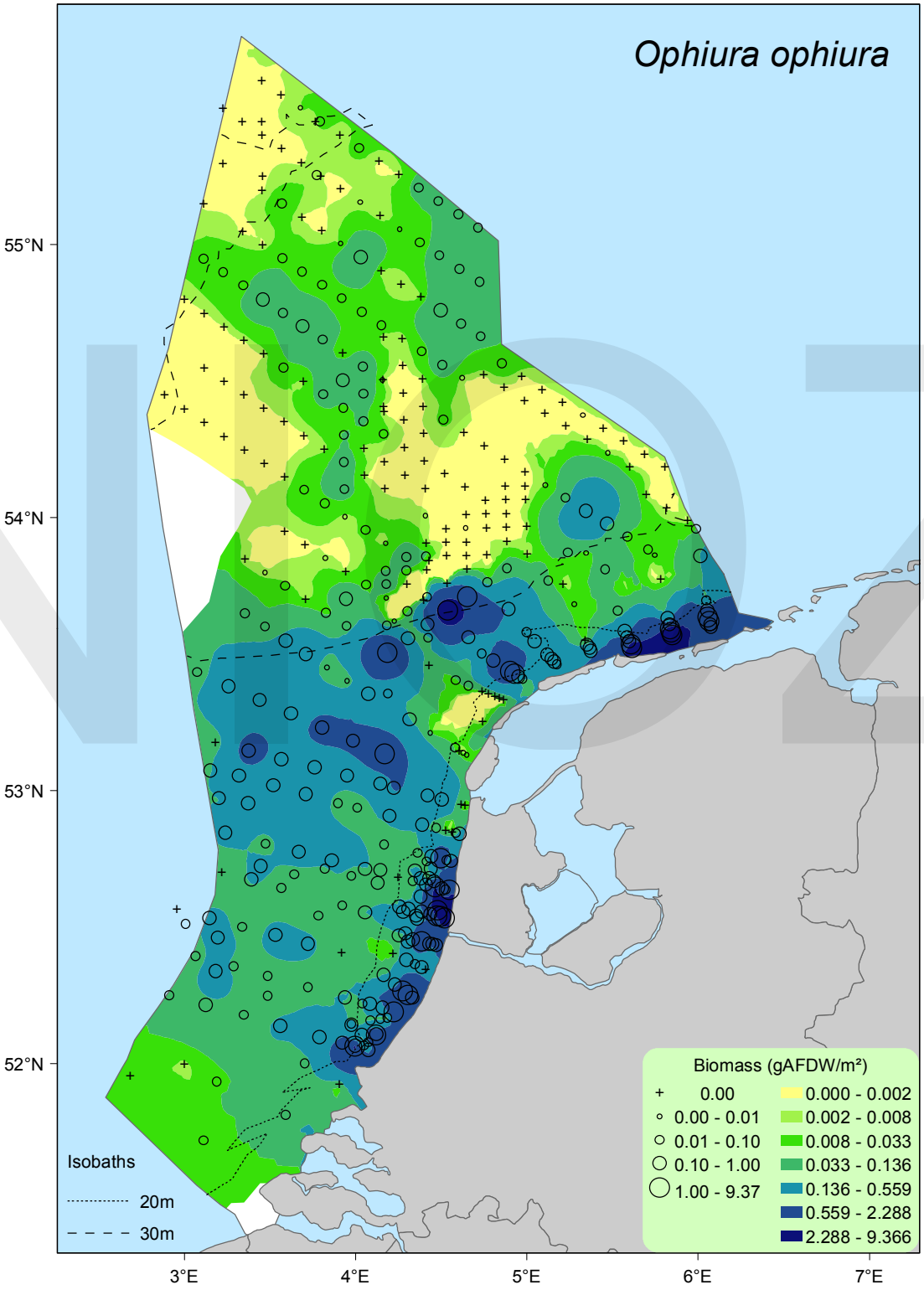

Luidia spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.4
0.00 - 0.03
0.03 - 0.06
0.06 - 0.11
0.11 - 0.16
0.16 - 0.23
0.23 - 0.32
0.32 - 0.44

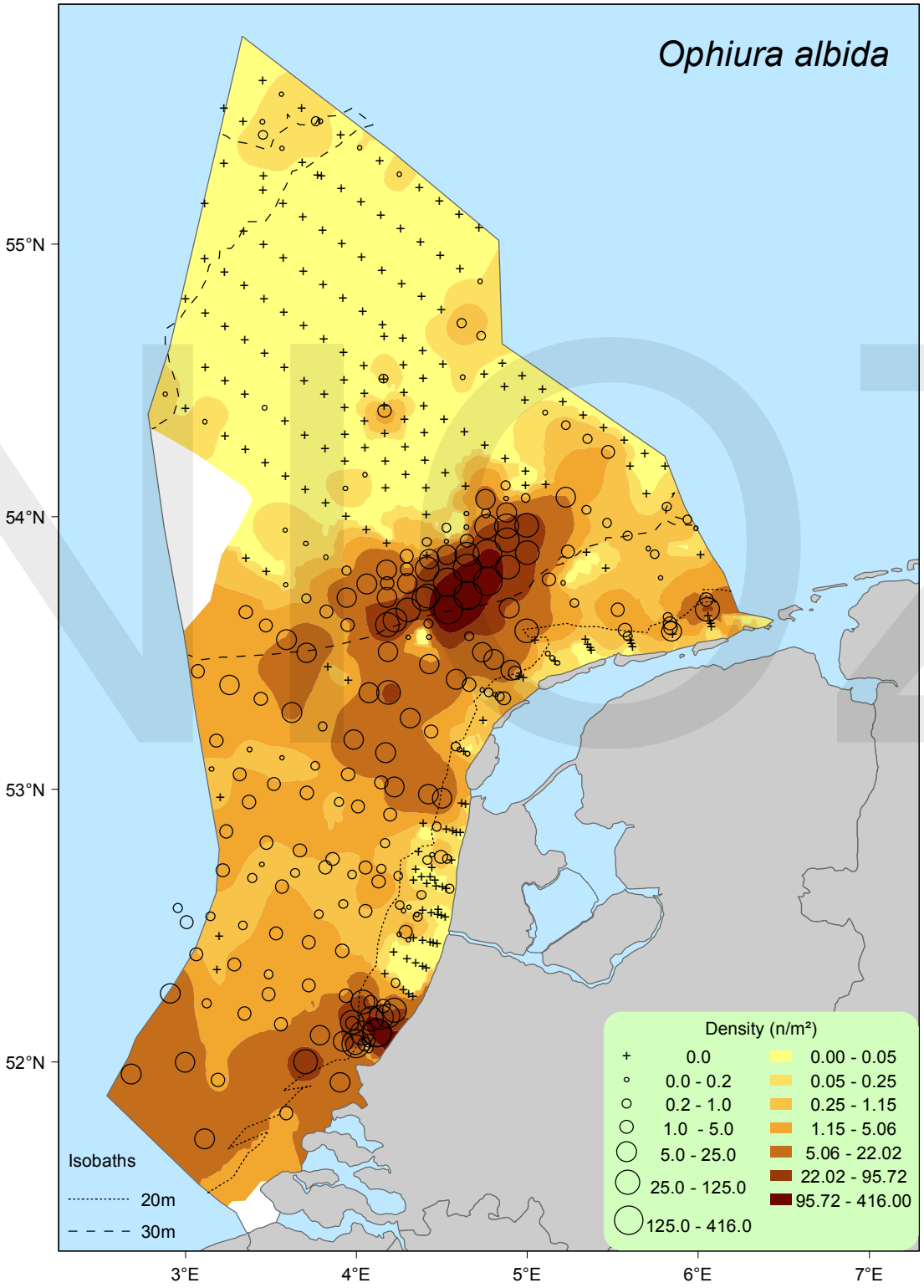

Luidia spp.
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.79
0.00 - 0.04
0.04 - 0.09
0.09 - 0.16
0.16 - 0.26
0.26 - 0.39
0.39 - 0.56
0.56 - 0.79

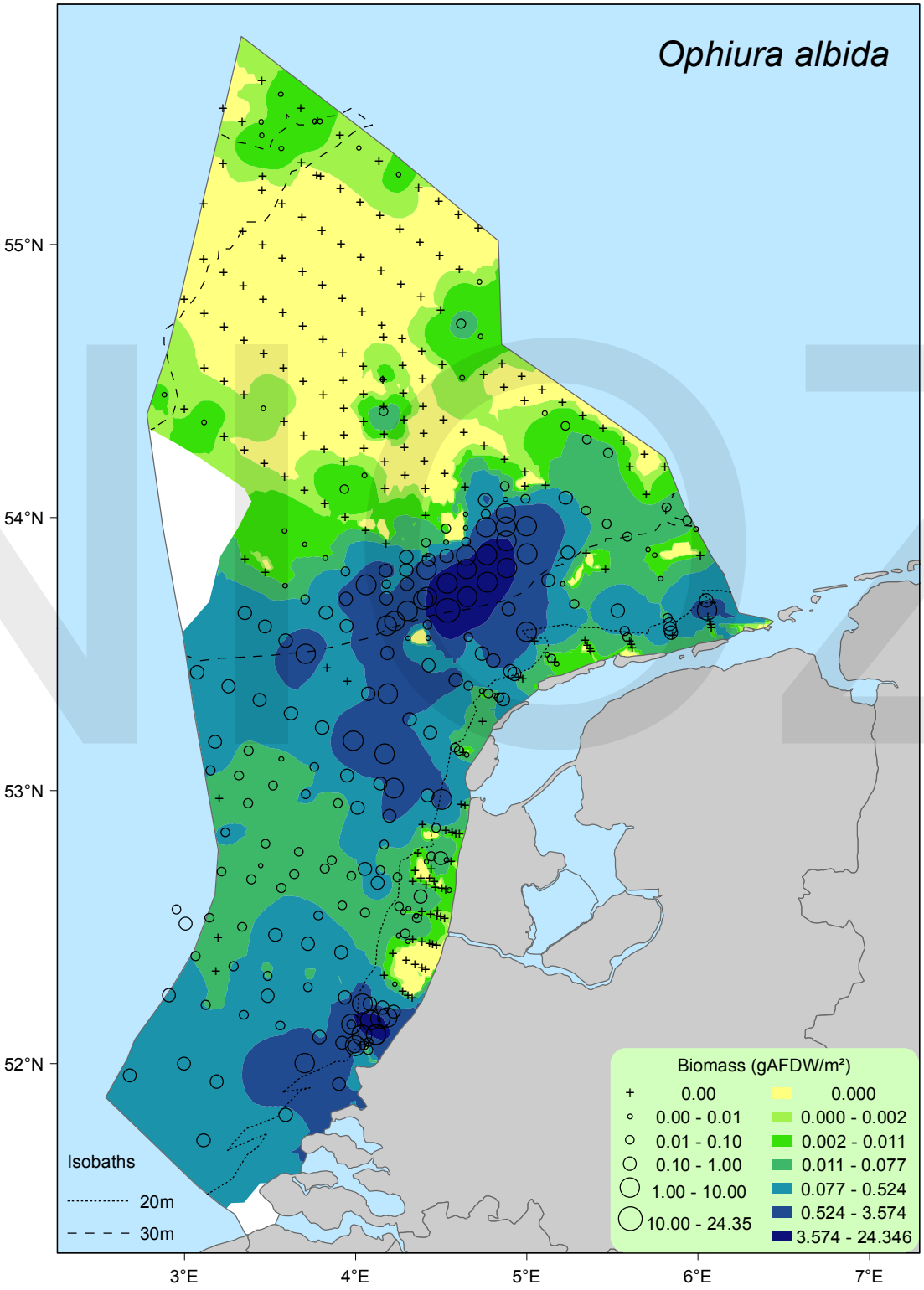

Asterias rubens
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 26.0
0.00 - 0.02
0.02 - 0.07
0.07 - 0.23
0.23 - 0.77
0.77 - 2.50
2.50 - 8.07
8.07 - 26.00

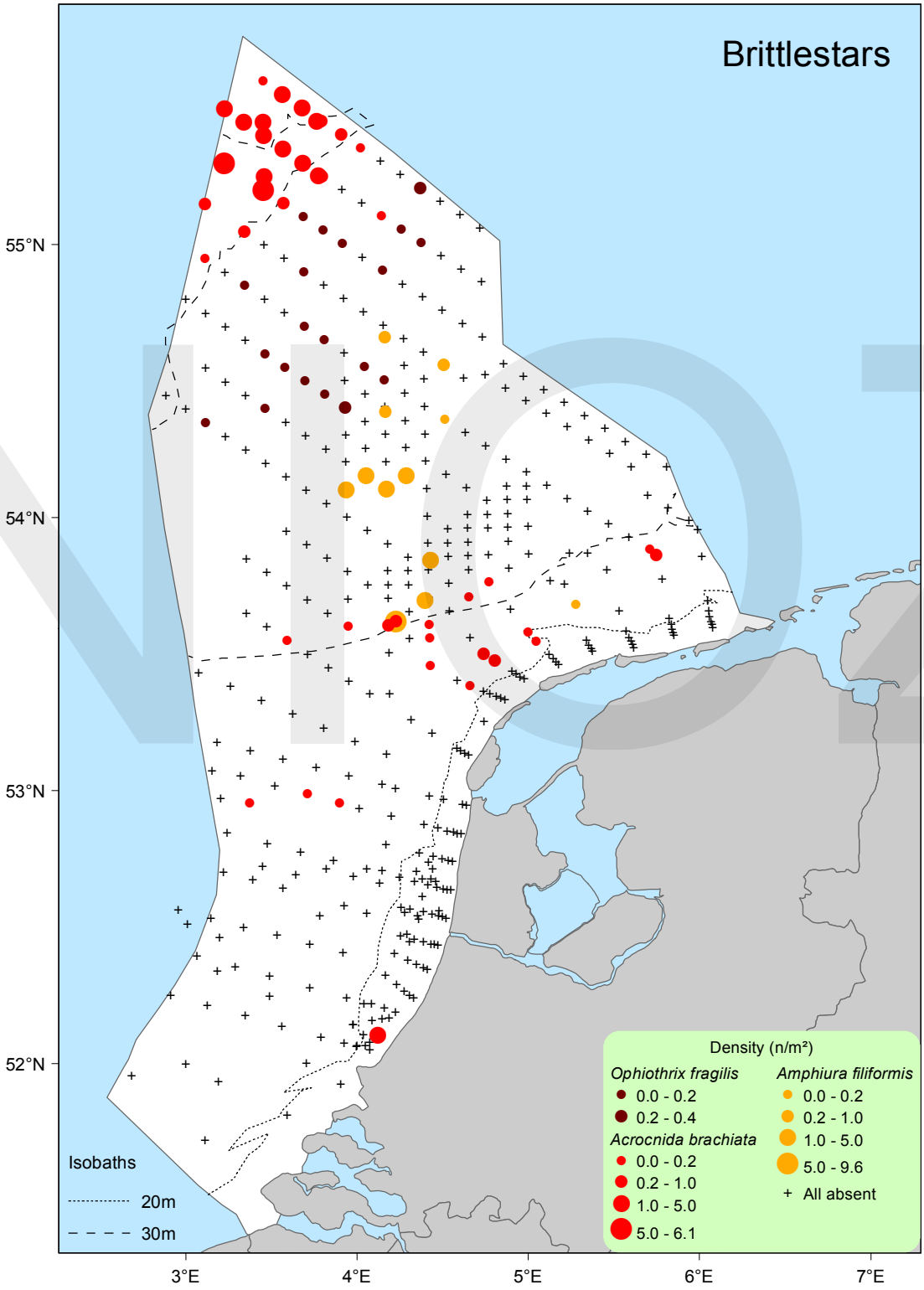

Asterias rubens
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 52.10
0.00 - 0.01
0.01 - 0.05
0.05 - 0.21
0.21 - 0.83
0.83 - 3.30
3.30 - 13.11
13.11 - 52.10

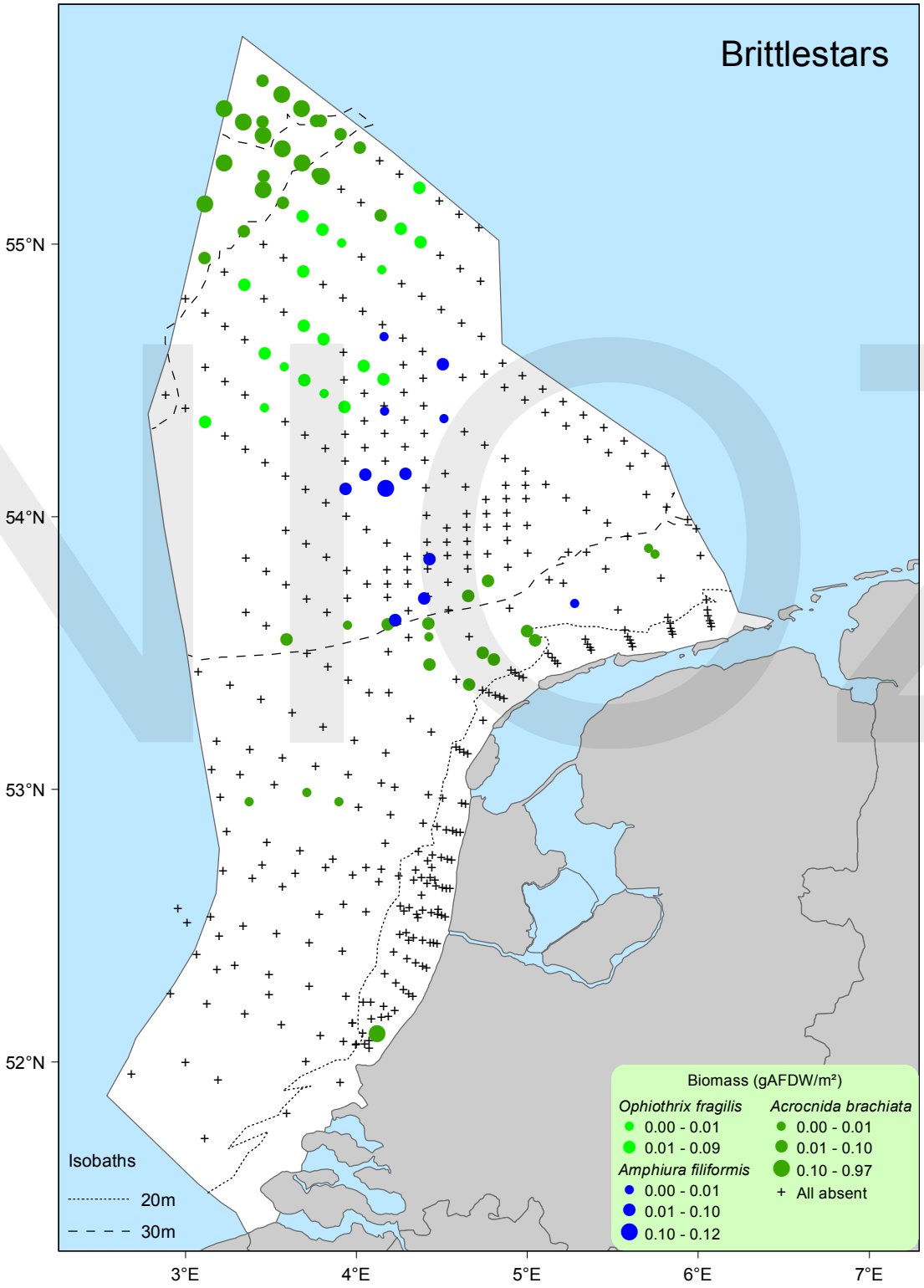

Ophiura ophiura
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 126.0
0.00 - 0.02
0.02 - 0.07
0.07 - 0.26
0.26 - 0.90
0.90 - 3.11
3.11 - 10.68
10.68 - 36.69
36.69 - 126.00

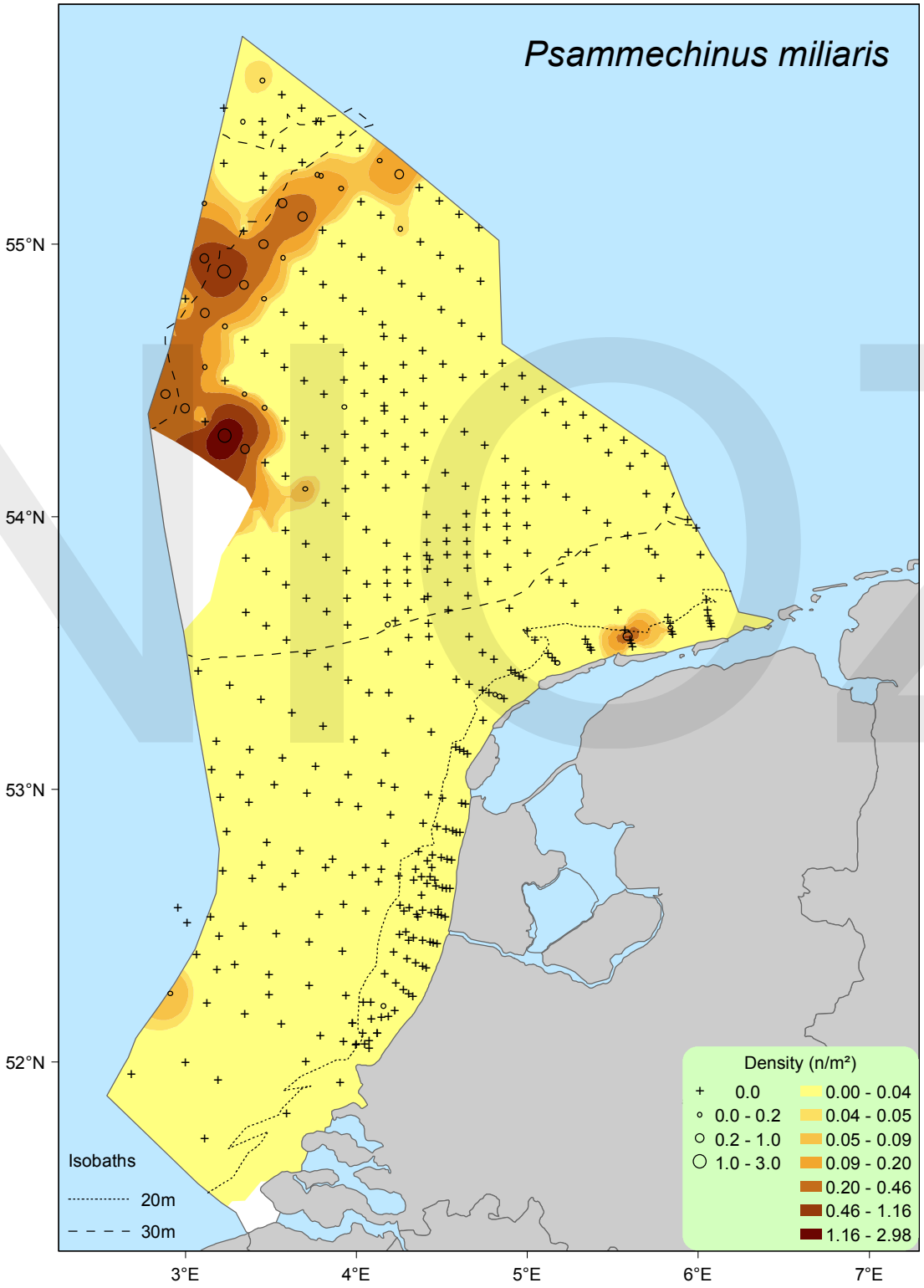

Ophiura ophiura
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 9.37
0.000 - 0.002
0.002 - 0.008
0.008 - 0.033
0.033 - 0.136
0.136 - 0.559
0.559 - 2.288
2.288 - 9.366

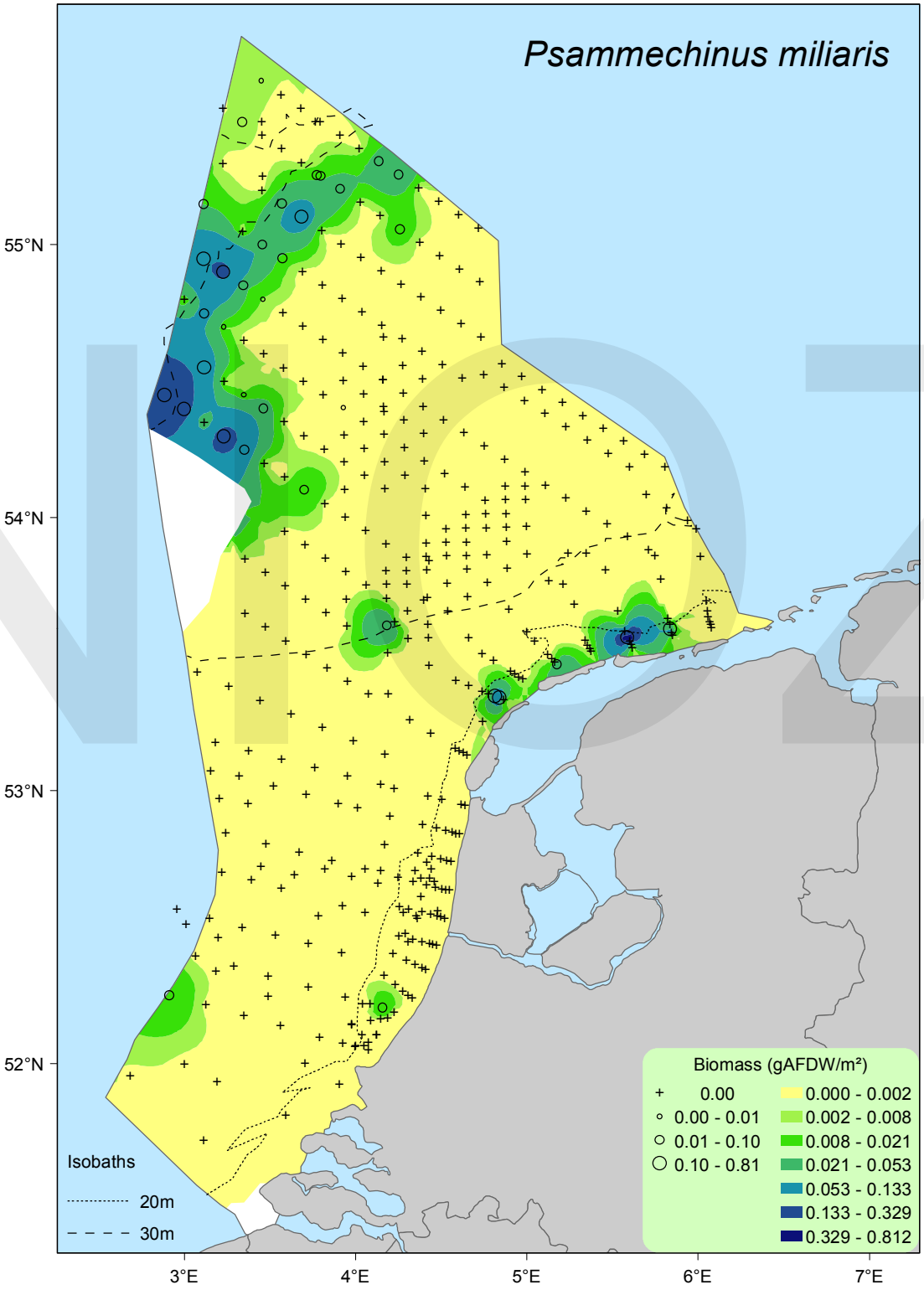

Ophiura albida
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 125.0
125.0 - 416.0
0.00 - 0.05
0.05 - 0.25
0.25 - 1.15
1.15 - 5.06
5.06 - 22.02
22.02 - 95.72
95.72 - 416.00

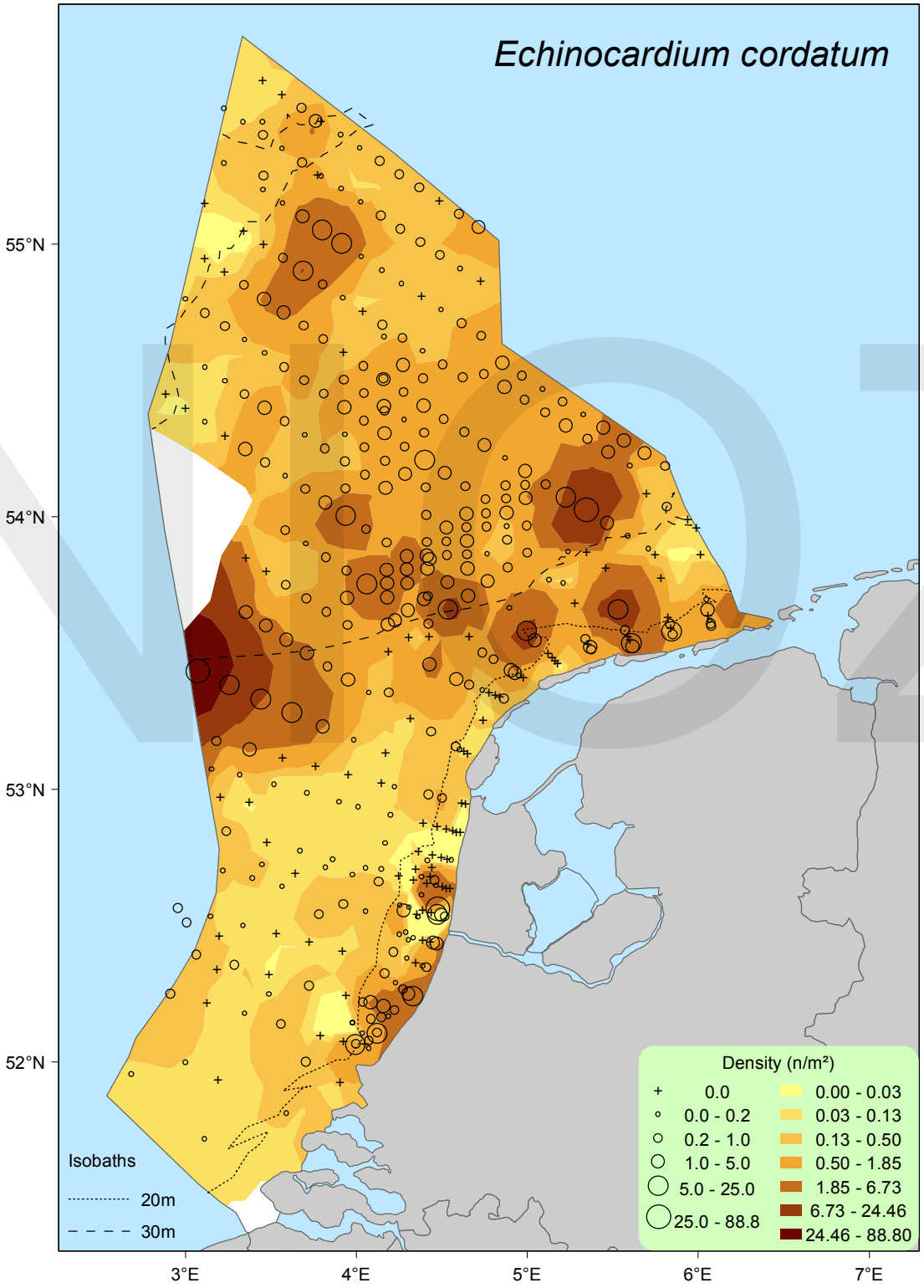

Ophiura albida
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 24.35
0.000
0.000 - 0.002
0.002 - 0.011
0.011 - 0.077
0.077 - 0.524
0.524 - 3.574
3.574 - 24.346

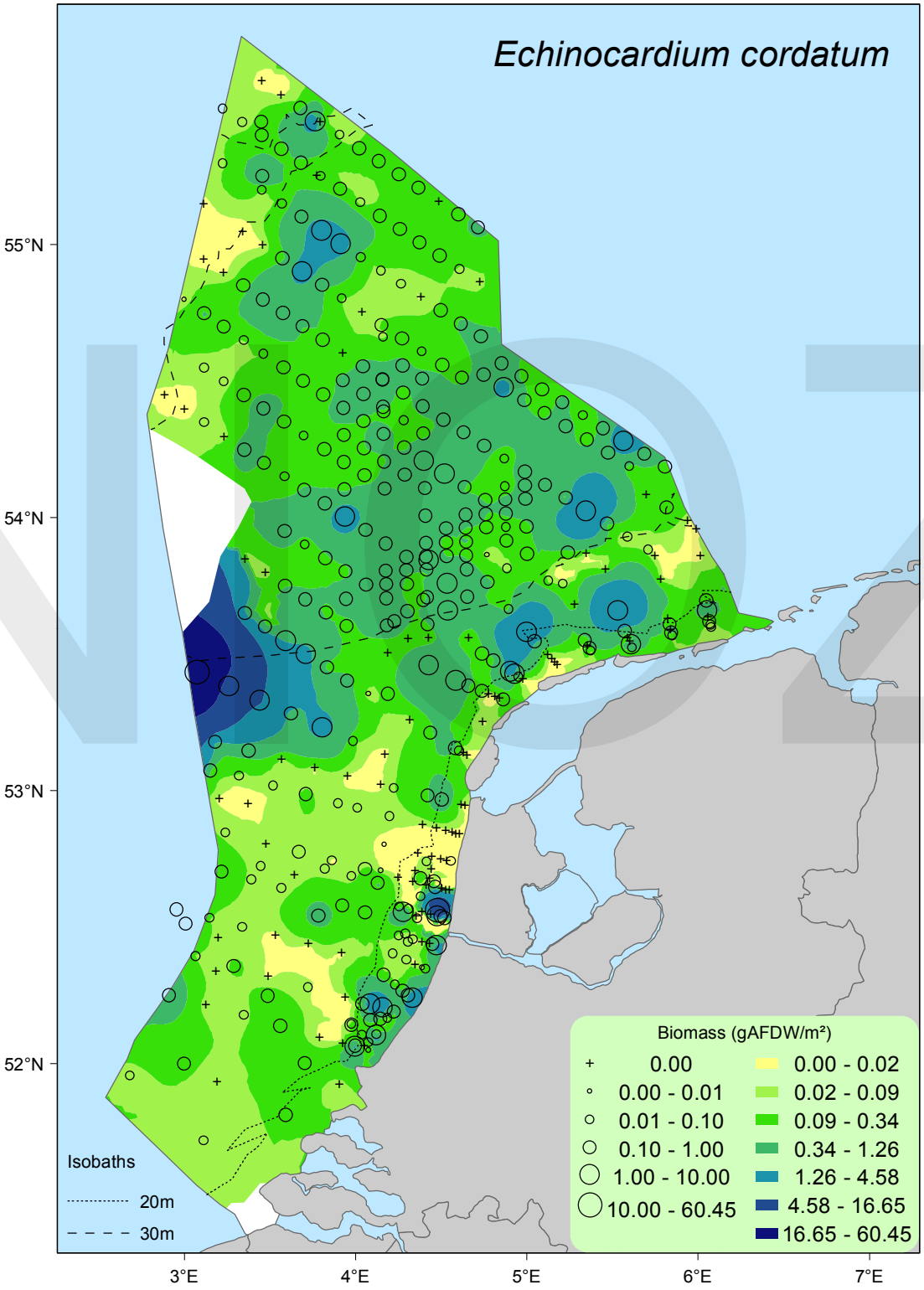

Brittlestars
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Ophiothrix fragilis
0.0 - 0.2
0.2 - 0.4
Acrocnida brachiata
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 6.1
Amphiura filiformis
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 9.6
+ All absent

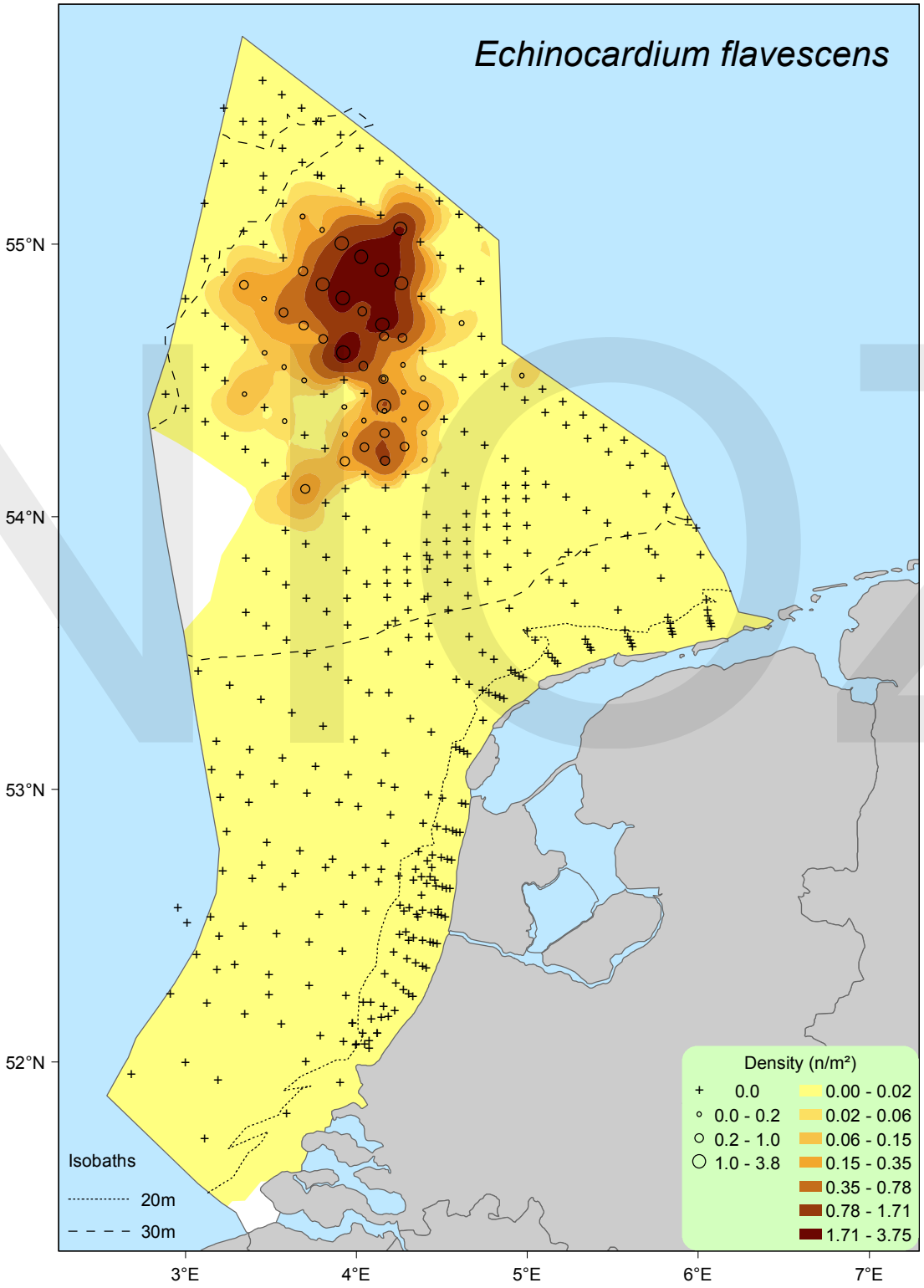

Brittlestars
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Ophiothrix fragilis
0.00 - 0.01
0.01 - 0.09
Amphiura filiformis
0.00 - 0.01
0.01 - 0.10
0.10 - 0.12
Acrocnida brachiata
0.00 - 0.01
0.01 - 0.10
0.10 - 0.97
All absent

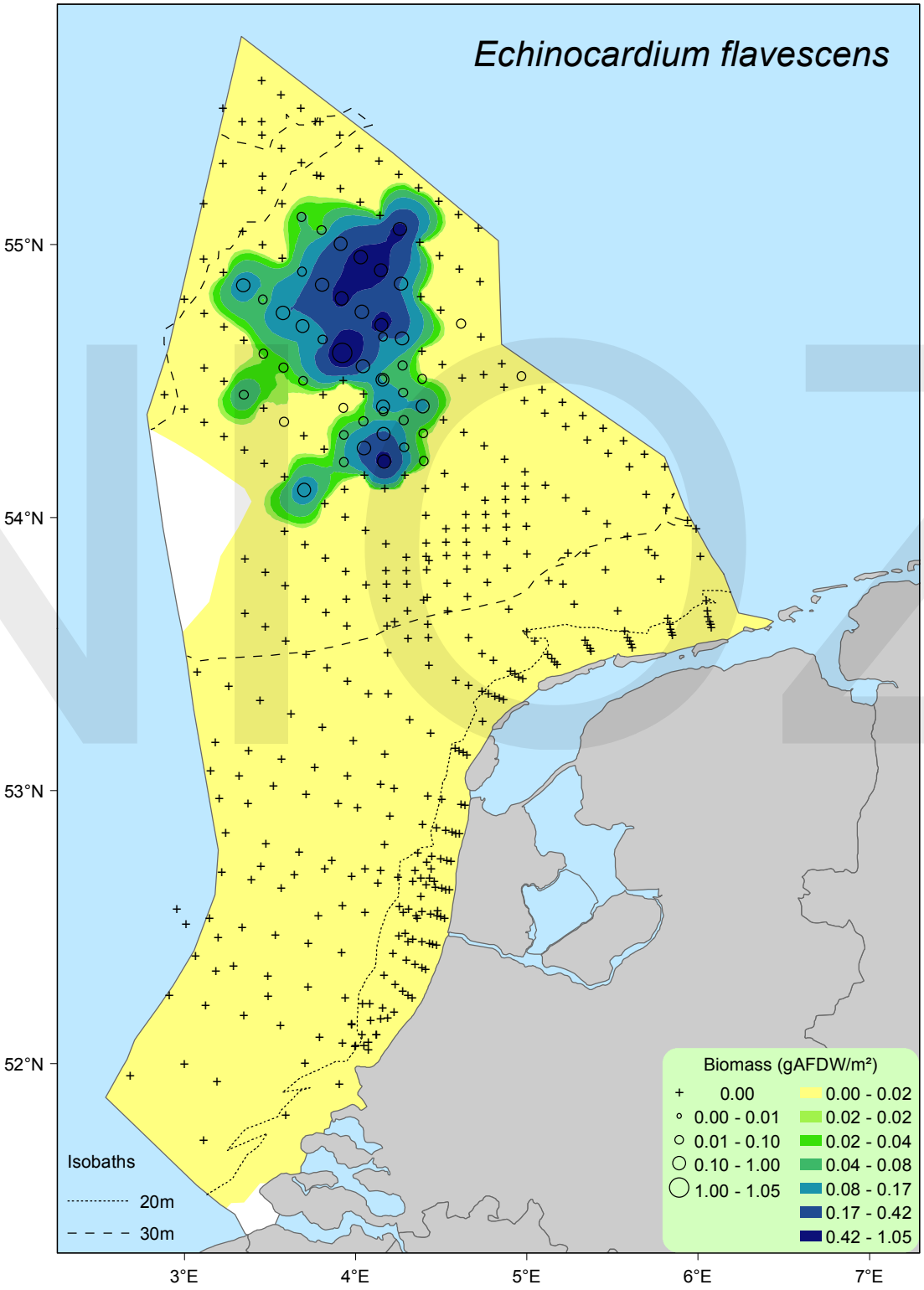

Psammechinus miliaris
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 3.0
0.00 - 0.04
0.04 - 0.05
0.05 - 0.09
0.09 - 0.20
0.20 - 0.46
0.46 - 1.16
1.16 - 2.98

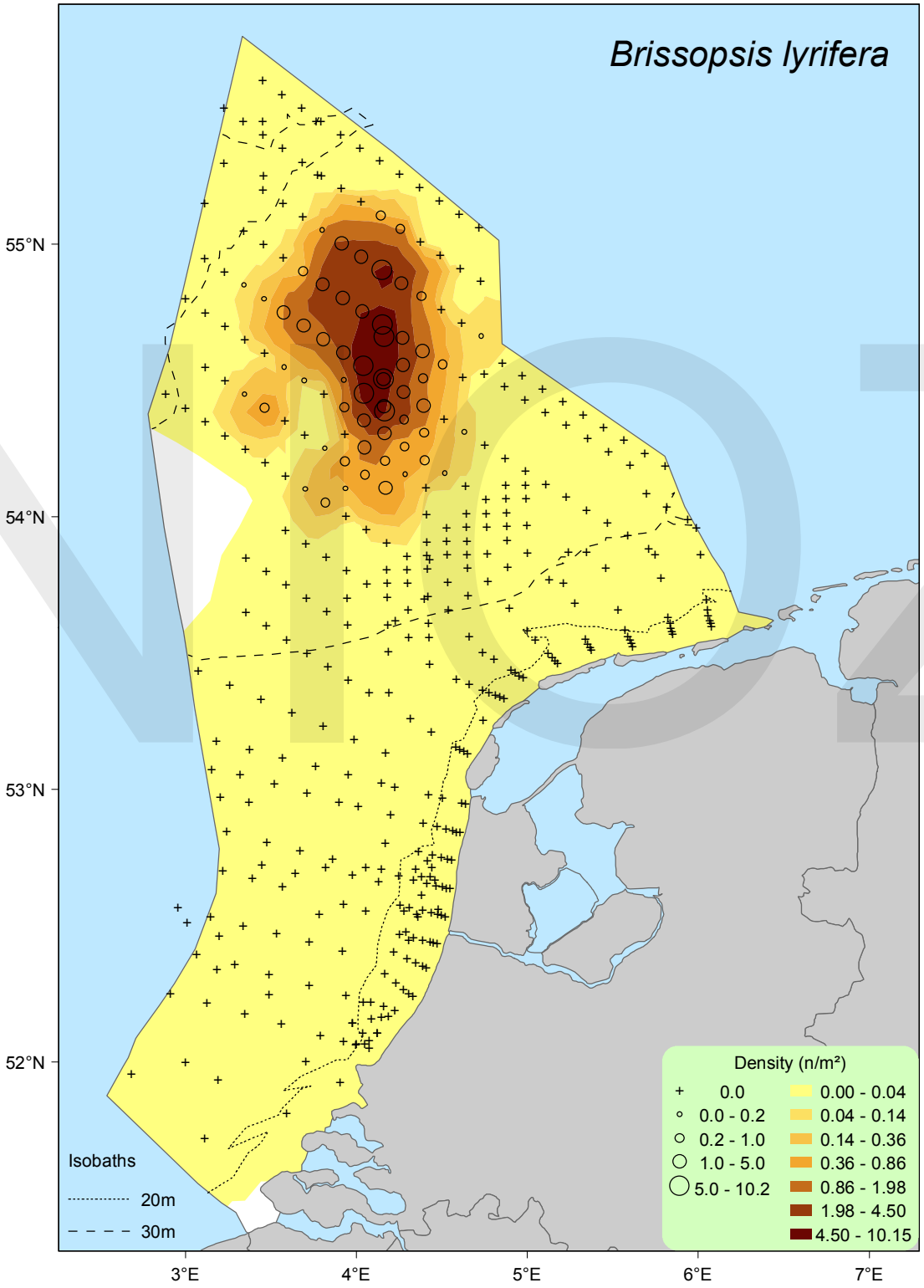

Psammechinus miliaris
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.81
0.000 - 0.002
0.002 - 0.008
0.008 - 0.021
0.021 - 0.053
0.053 - 0.133
0.133 - 0.329
0.329 - 0.812

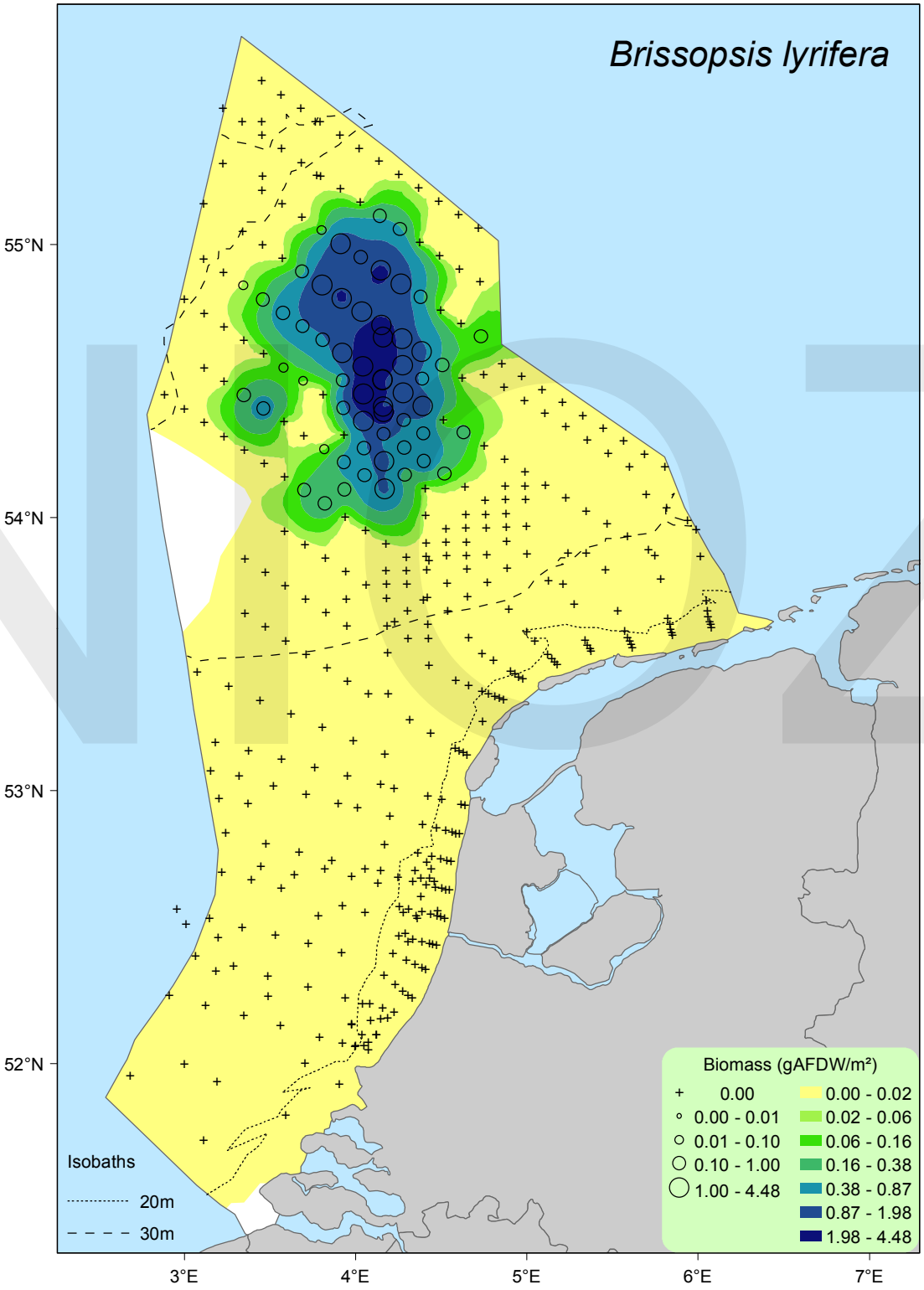

Echinocardium cordatum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 88.8
0.00 - 0.03
0.03 - 0.13
0.13 - 0.50
0.50 - 1.85
1.85 - 6.73
6.73 - 24.46
24.46 - 88.80

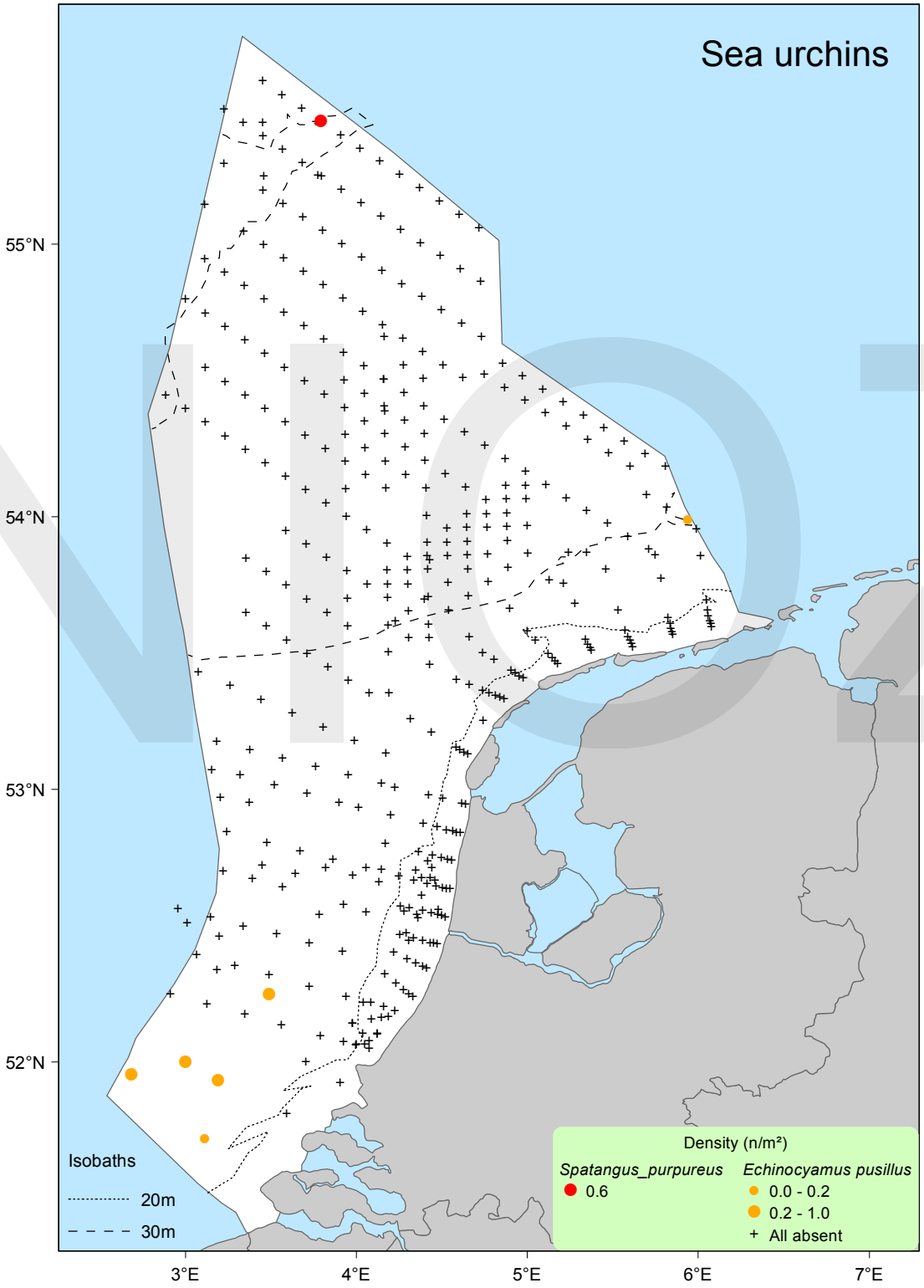

Echinocardium cordatum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 60.45
0.00 - 0.02
0.02 - 0.09
0.09 - 0.34
0.34 - 1.26
1.26 - 4.58
4.58 - 16.65
16.65 - 60.45

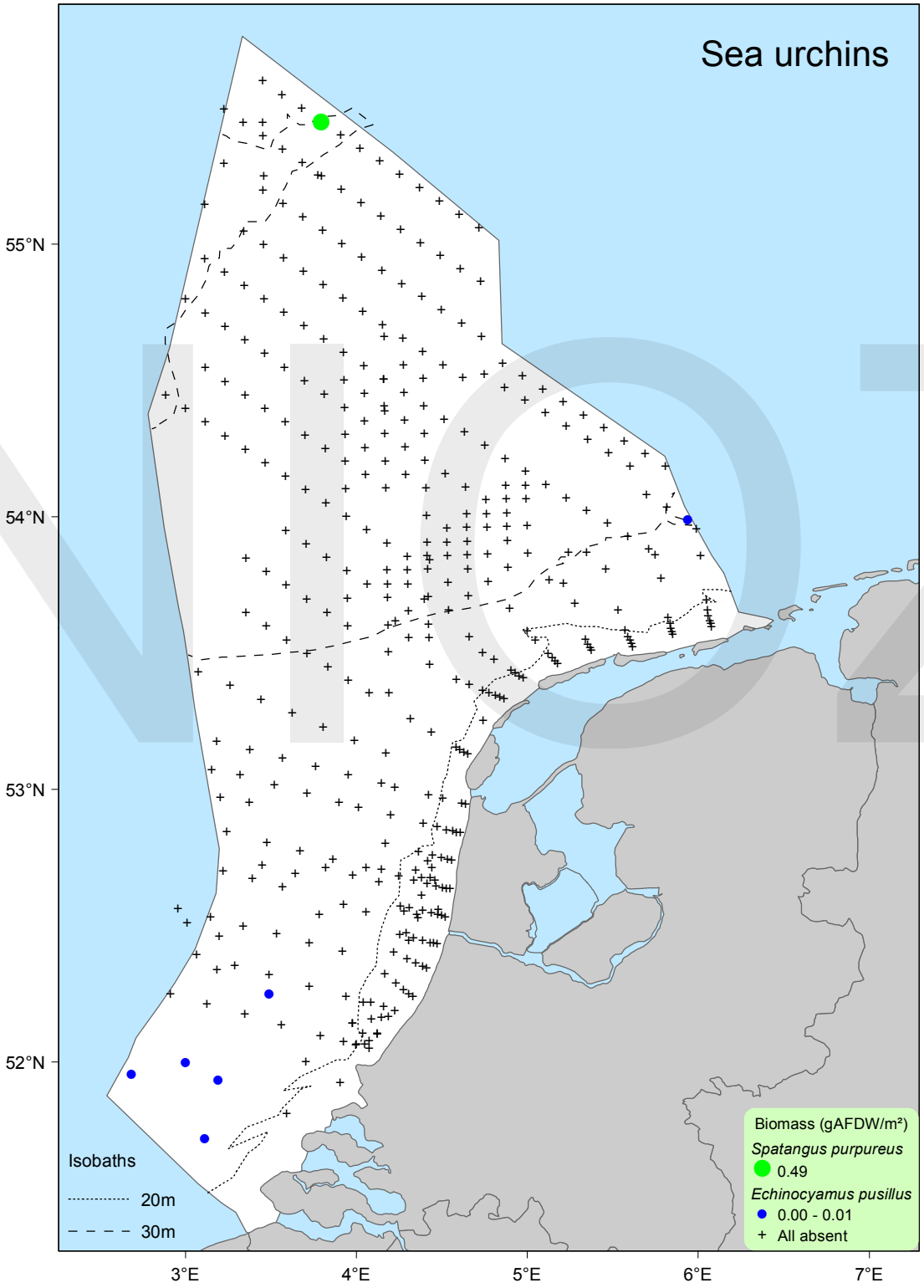

Echinocardium flavescens
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 3.8
0.00 - 0.02
0.02 - 0.06
0.06 - 0.15
0.15 - 0.35
0.35 - 0.78
0.78 - 1.71
1.71 - 3.75

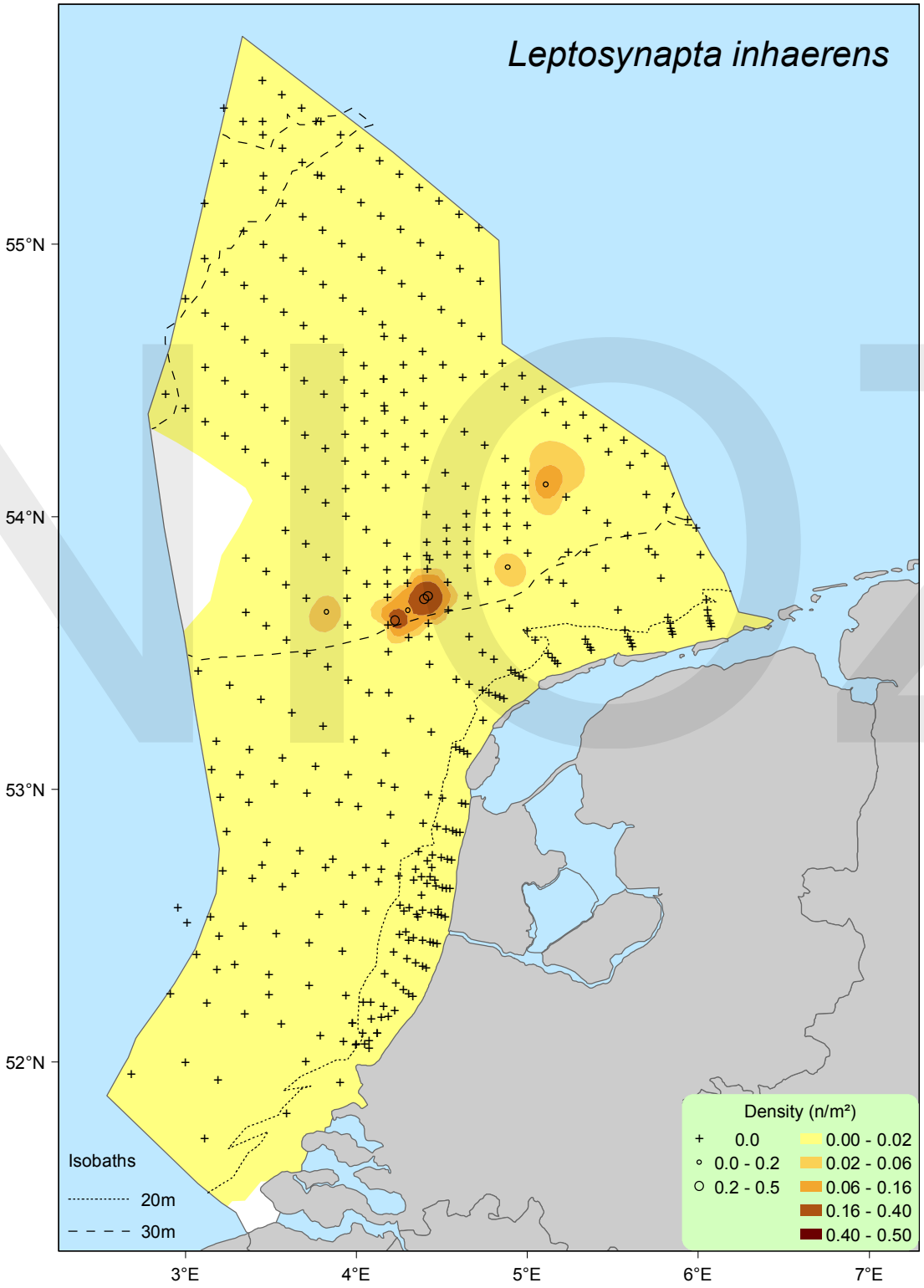

Echinocardium flavescens
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.05
0.00 - 0.02
0.02 - 0.02
0.02 - 0.04
0.04 - 0.08
0.08 - 0.17
0.17 - 0.42
0.42 - 1.05

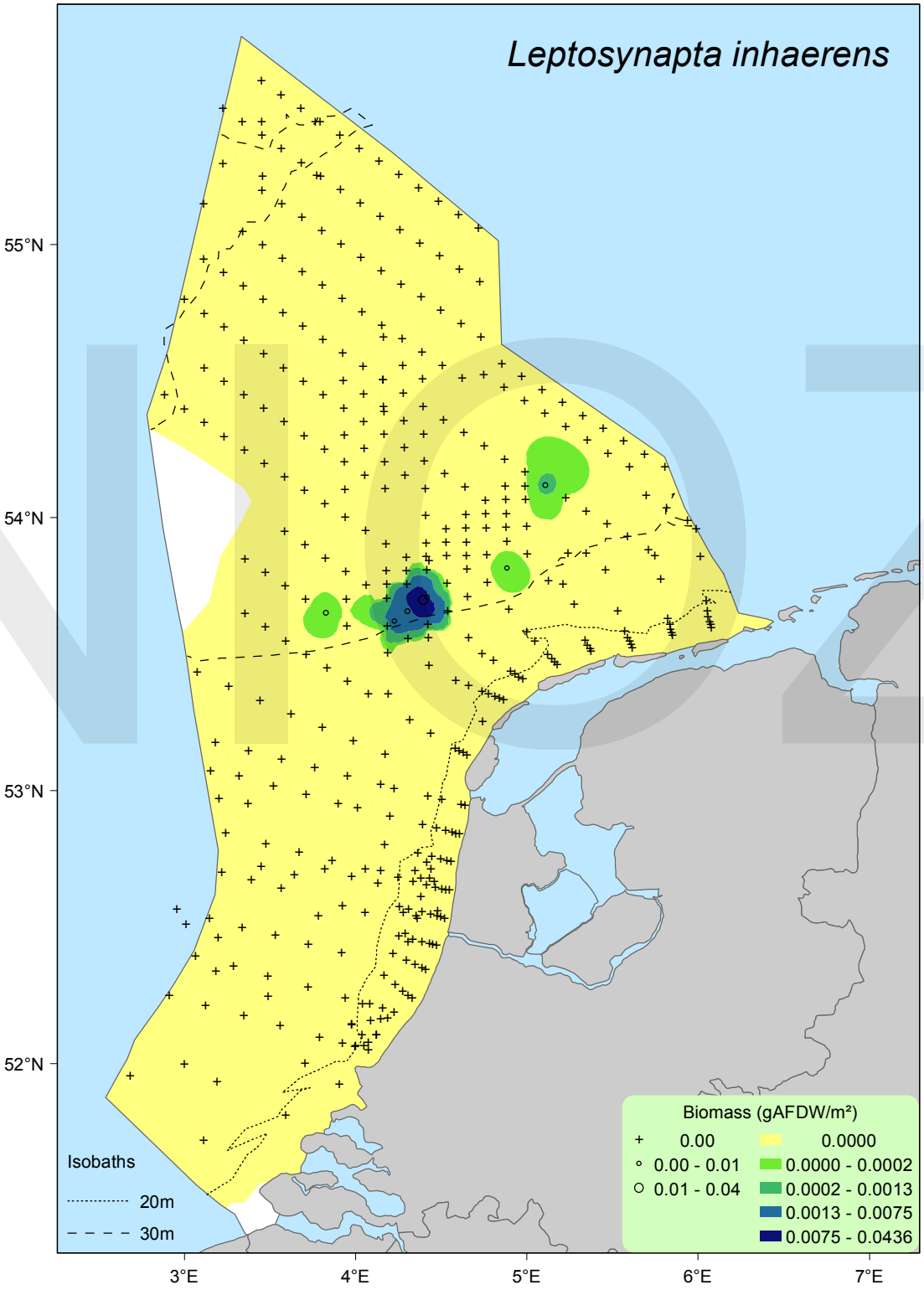

Brissopsis lyrifera
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 10.2
0.00 - 0.04
0.04 - 0.14
0.14 - 0.36
0.36 - 0.86
0.86 - 1.98
1.98 - 4.50
4.50 - 10.15

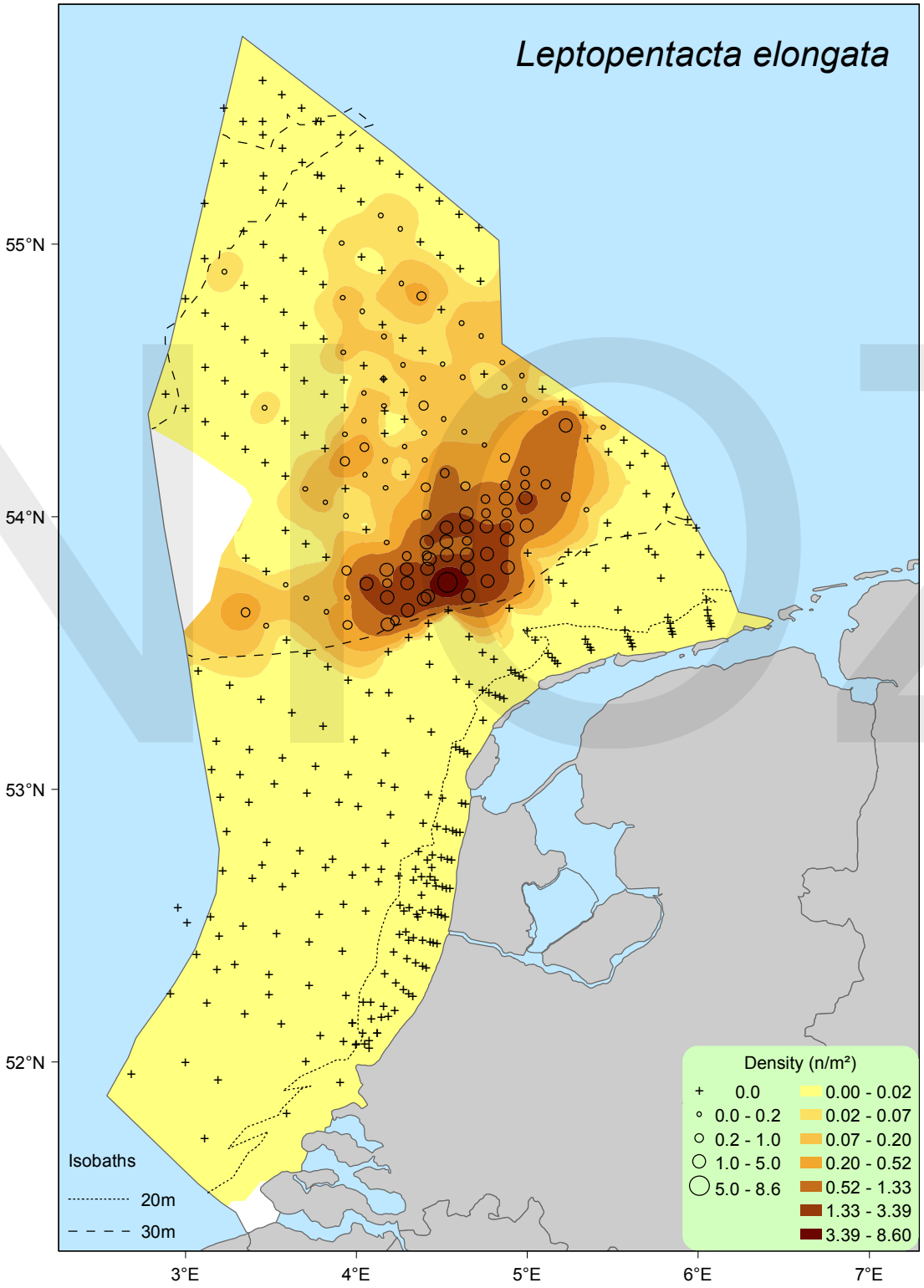

Brissopsis lyrifera
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 4.48
0.00 - 0.02
0.02 - 0.06
0.06 - 0.16
0.16 - 0.38
0.38 - 0.87
0.87 - 1.98
1.98 - 4.48

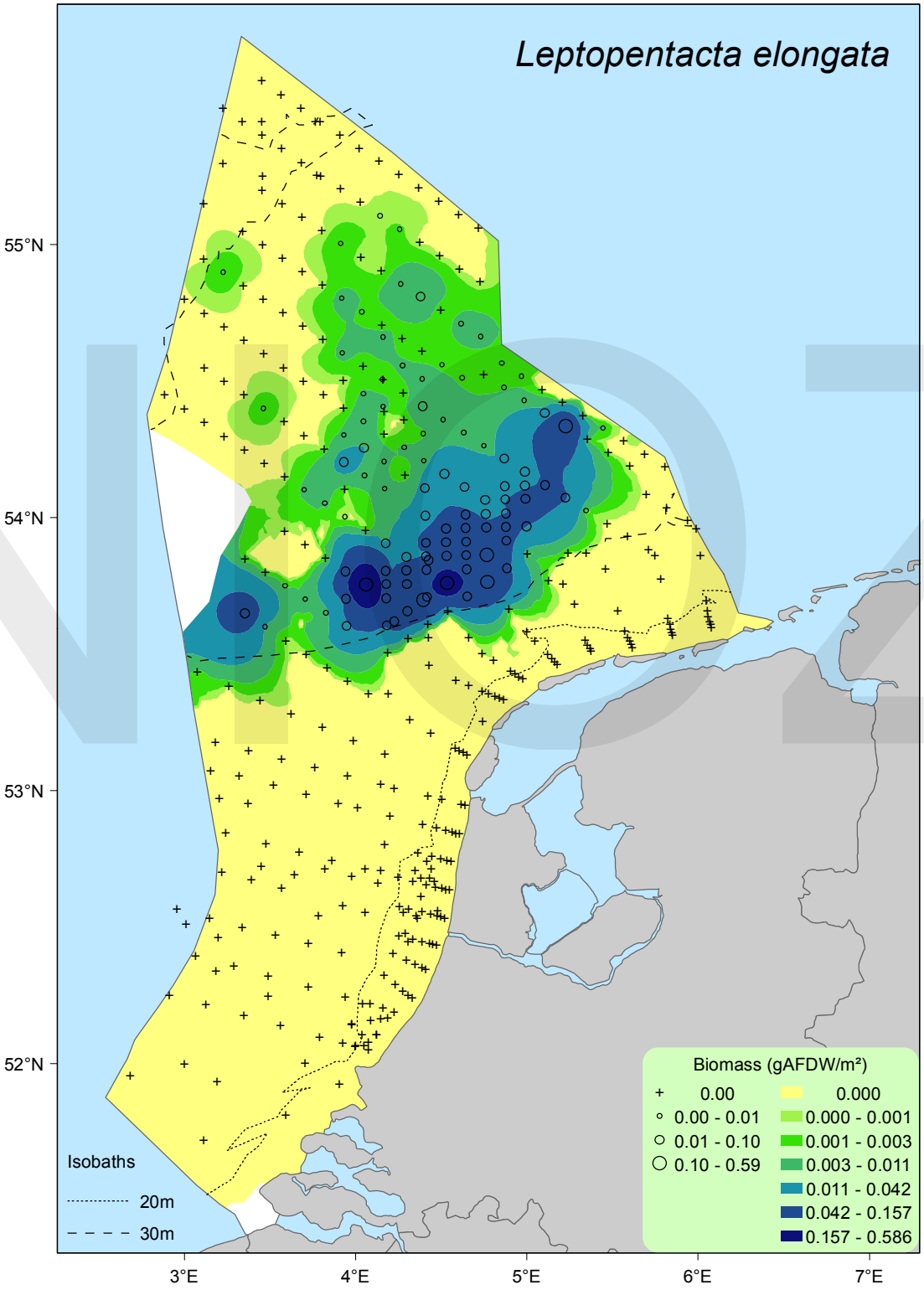

Sea urchins
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Spatangus_purpureus
0.6
Echinocyamus pusillus
0.0 - 0.2
0.2 - 1.0
All absent

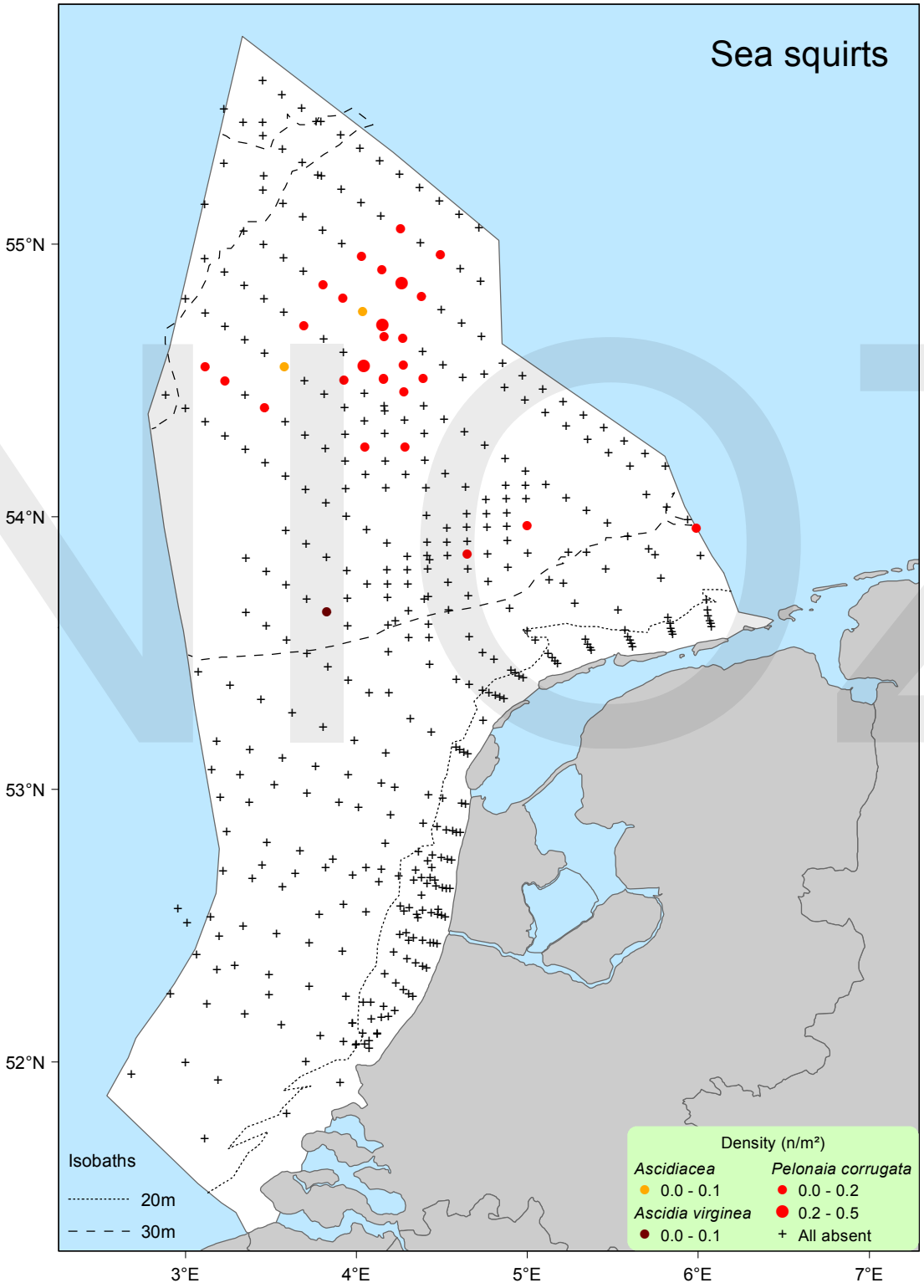

Sea urchins
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Spatangus purpureus
0.49
Echinocyamus pusillus
0.00 - 0.01
All absent

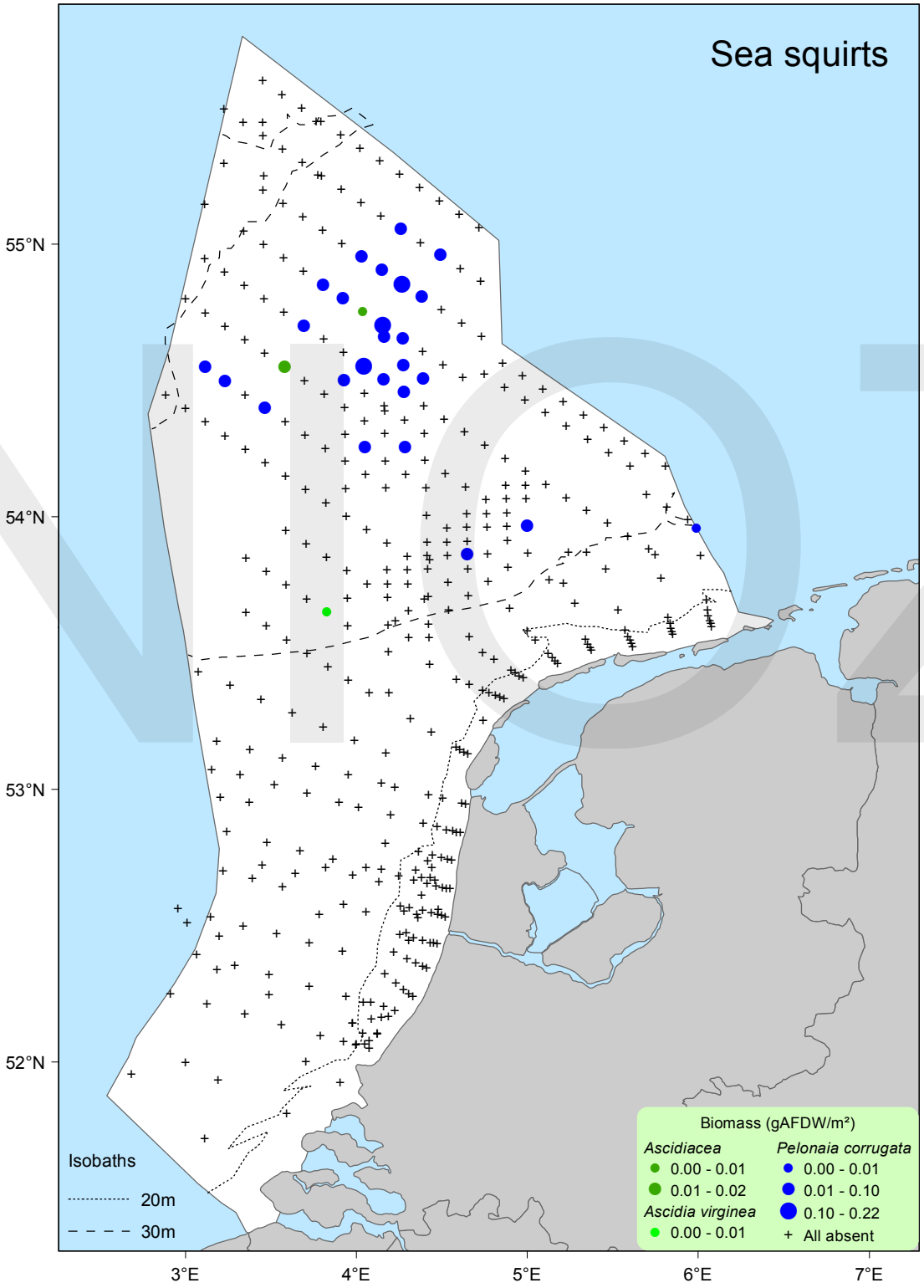

Leptosynapta inhaerens
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.5
0.00 - 0.02
0.02 - 0.06
0.06 - 0.16
0.16 - 0.40
0.40 - 0.50

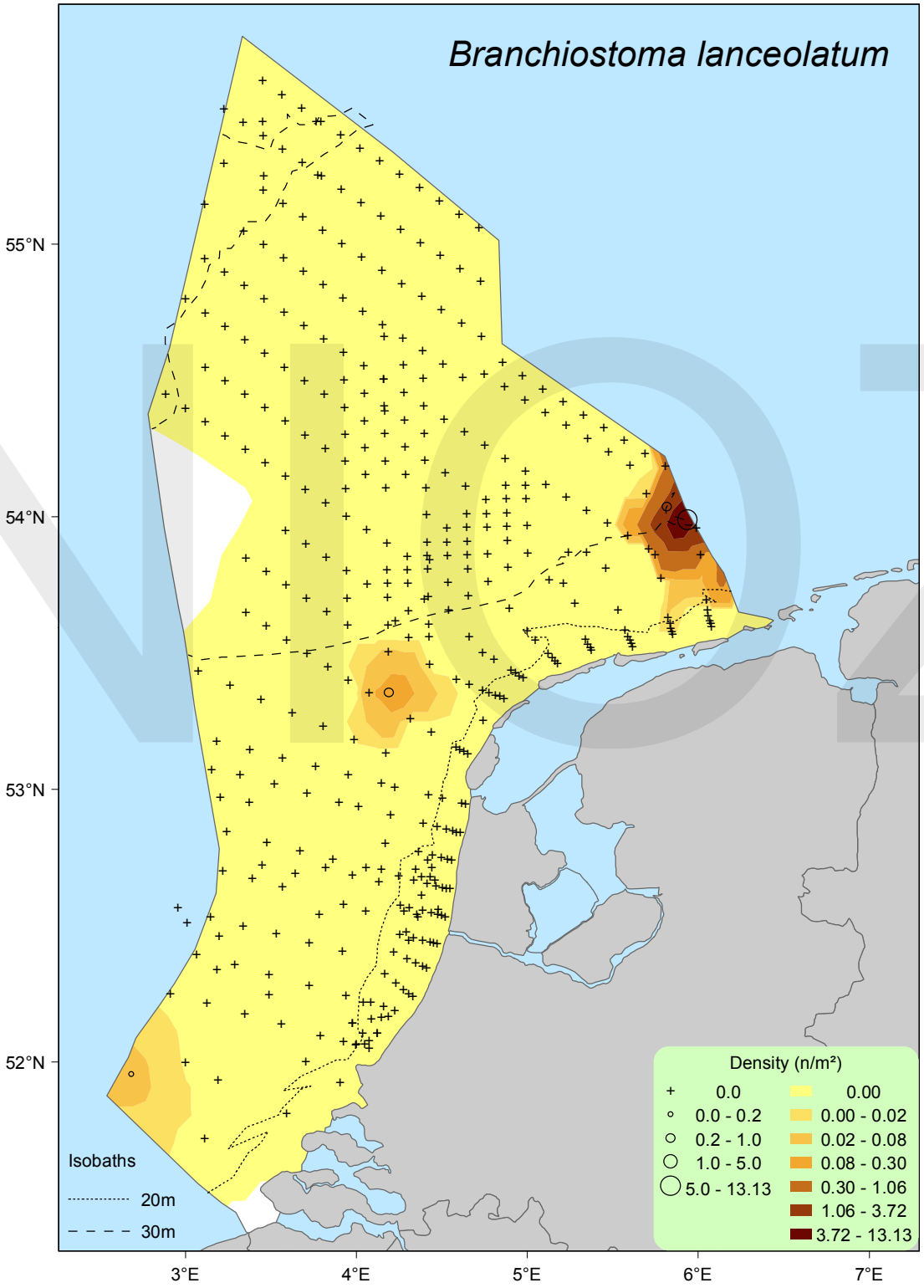

Leptosynapta inhaerens
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.04
0.0000
0.0000 - 0.0002
0.0002 - 0.0013
0.0013 - 0.0075
0.0075 - 0.0436

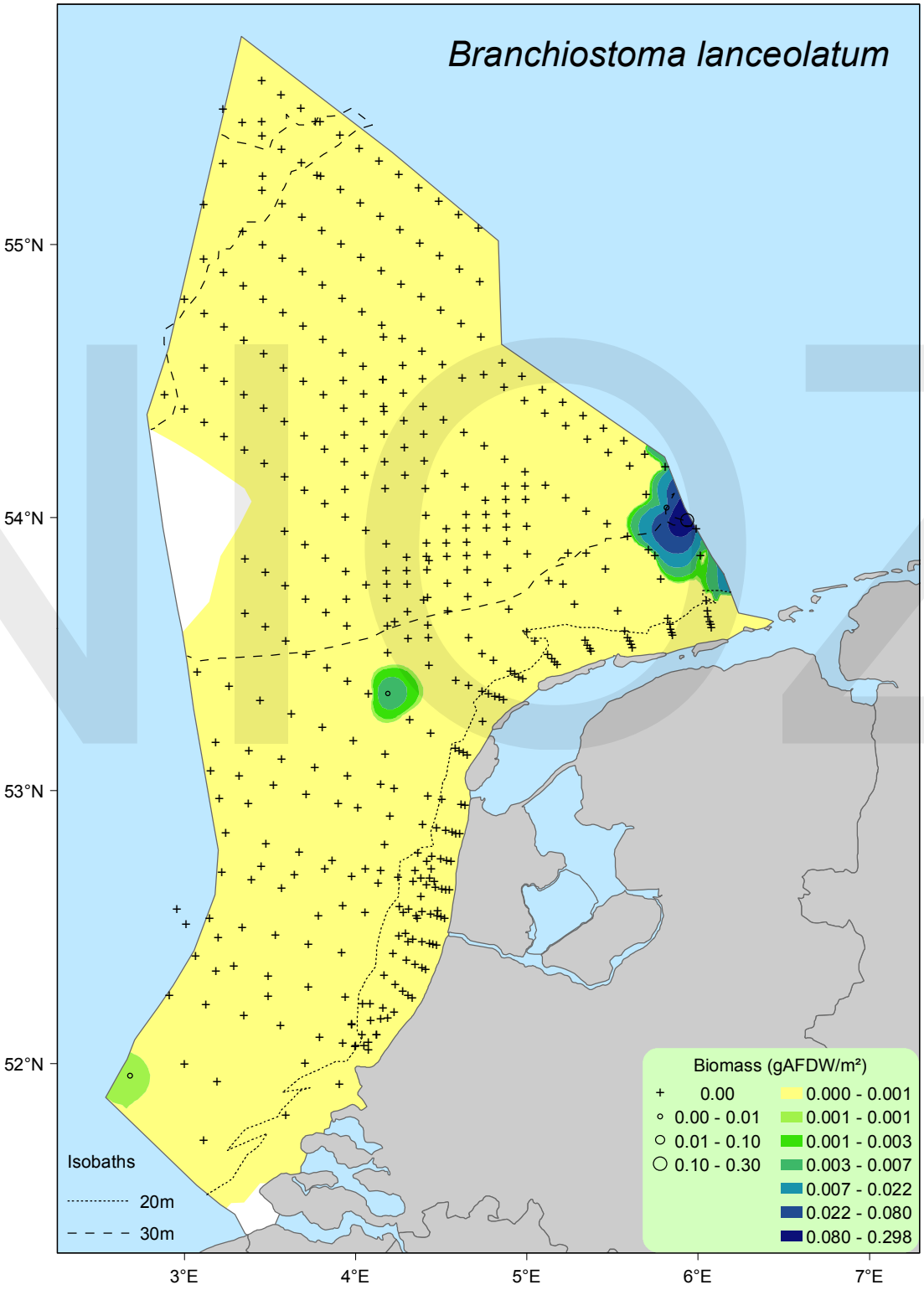

Leptopentacta elongata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 8.6
0.00 - 0.02
0.02 - 0.07
0.07 - 0.20
0.20 - 0.52
0.52 - 1.33
1.33 - 3.39
3.39 - 8.60

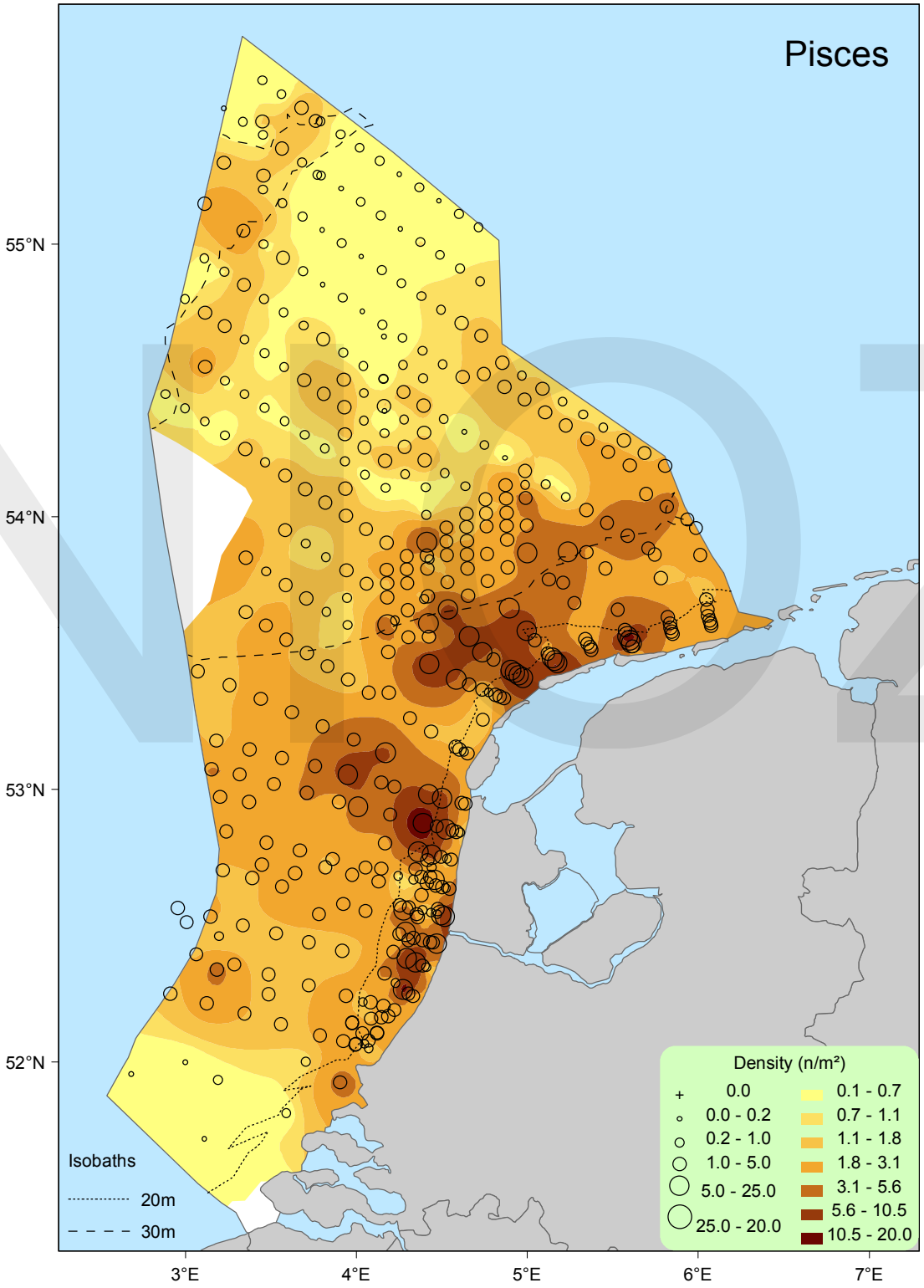

Leptopentacta elongata
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.59
0.000
0.000 - 0.001
0.001 - 0.003
0.003 - 0.011
0.011 - 0.042
0.042 - 0.157
0.157 - 0.586

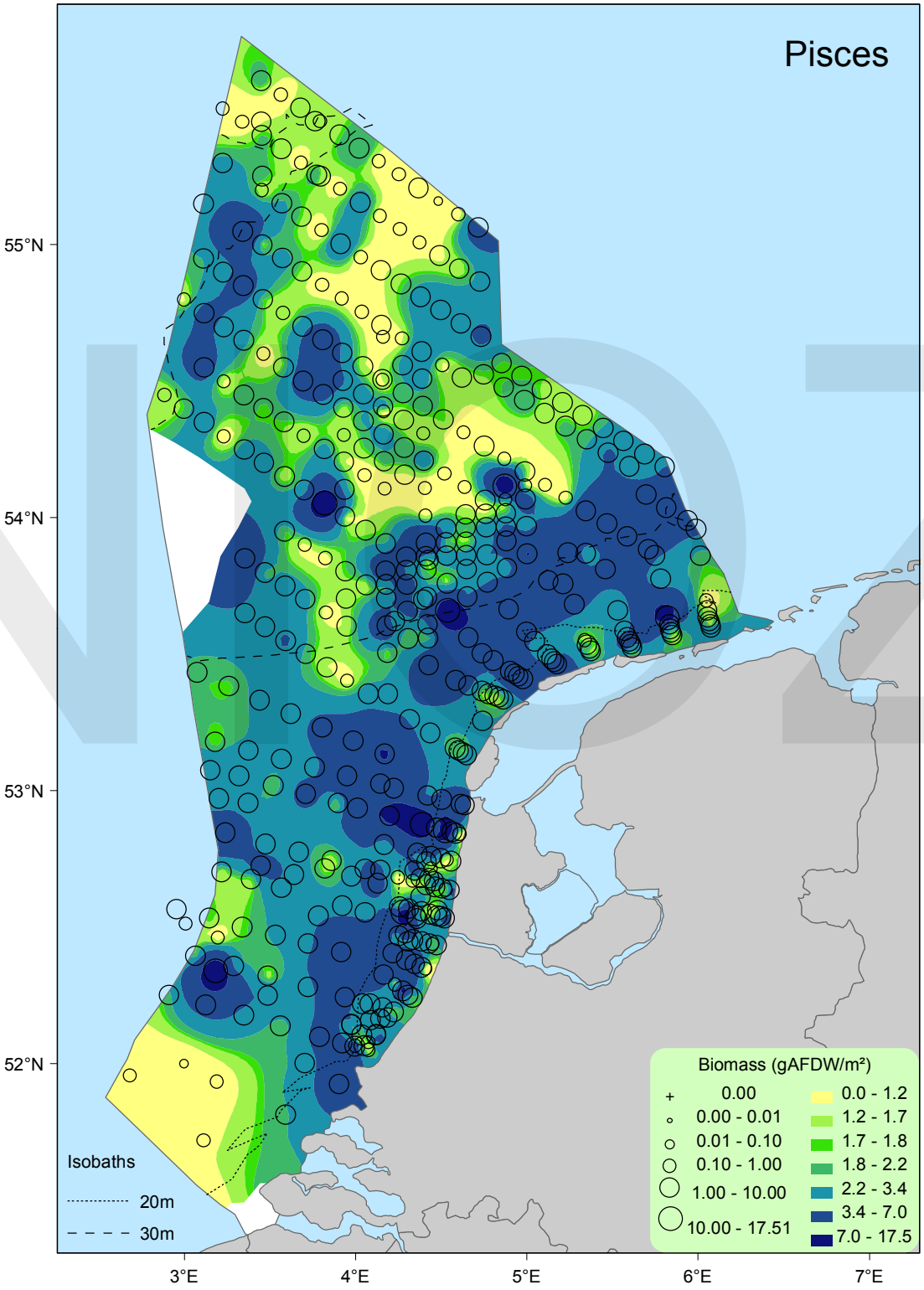

Sea squirts
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Ascidiacea
0.0 - 0.1
Ascidia virginea
0.0 - 0.1
Pelonaia corrugata
0.0 - 0.2
0.2 - 0.5
All absent

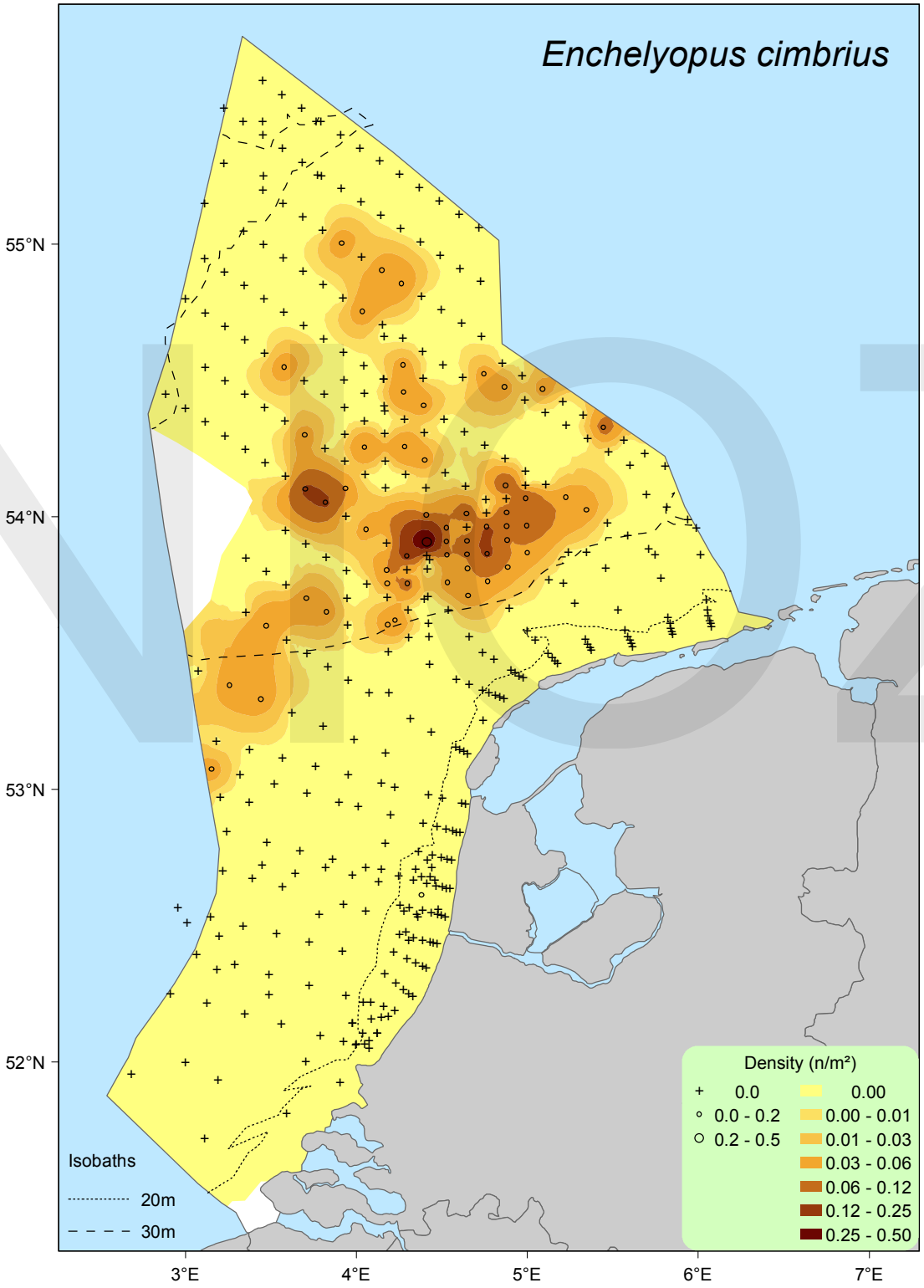

Sea squirts
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Ascidiacea
0.00 - 0.01
0.01 - 0.02
Ascidia virginea
0.00 - 0.01
Pelonaia corrugata
0.00 - 0.01
0.01 - 0.10
0.10 - 0.22
+ All absent

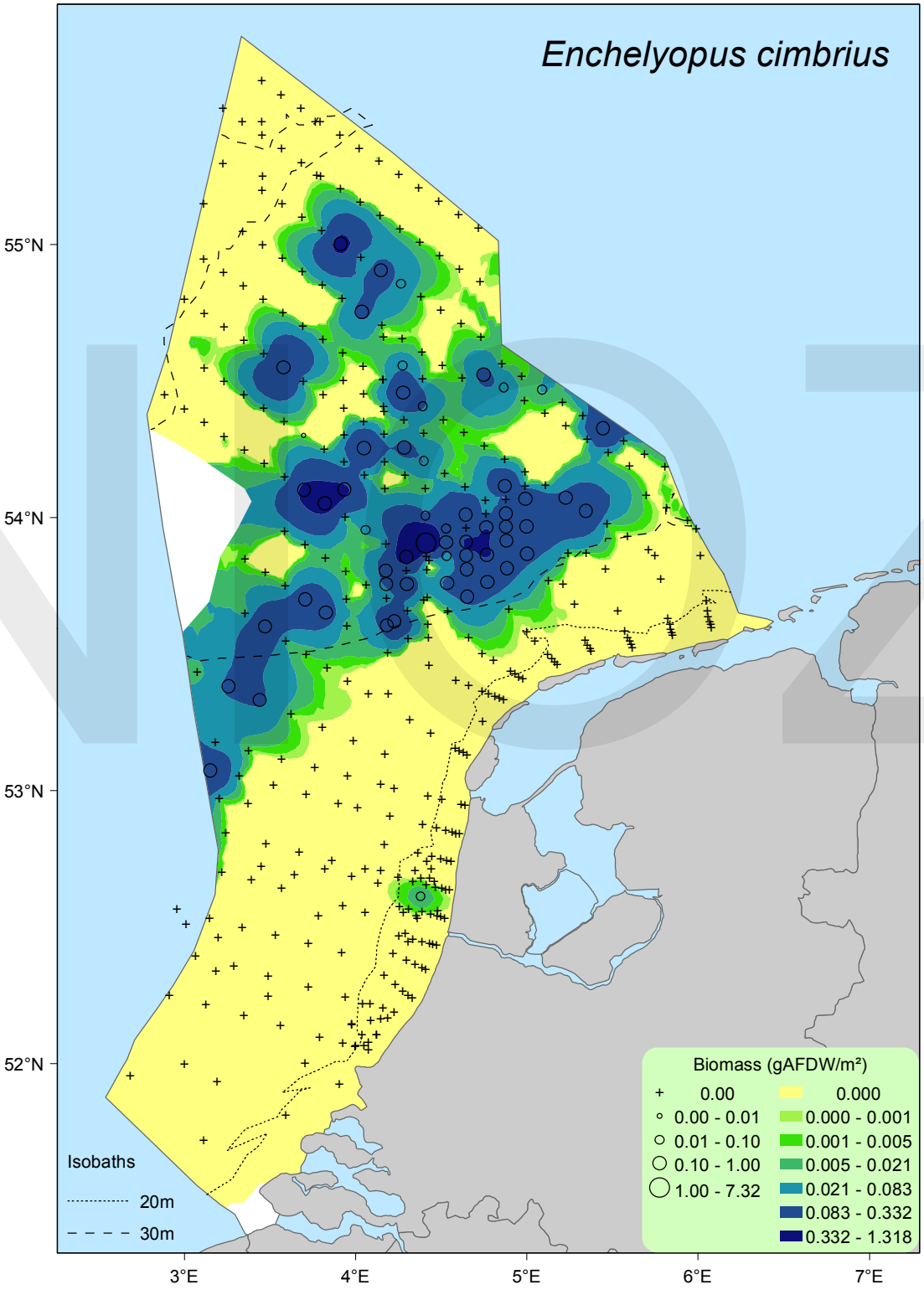

Branchiostoma lanceolatum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 13.13
0.00
0.00 - 0.02
0.02 - 0.08
0.08 - 0.30
0.30 - 1.06
1.06 - 3.72
3.72 - 13.13

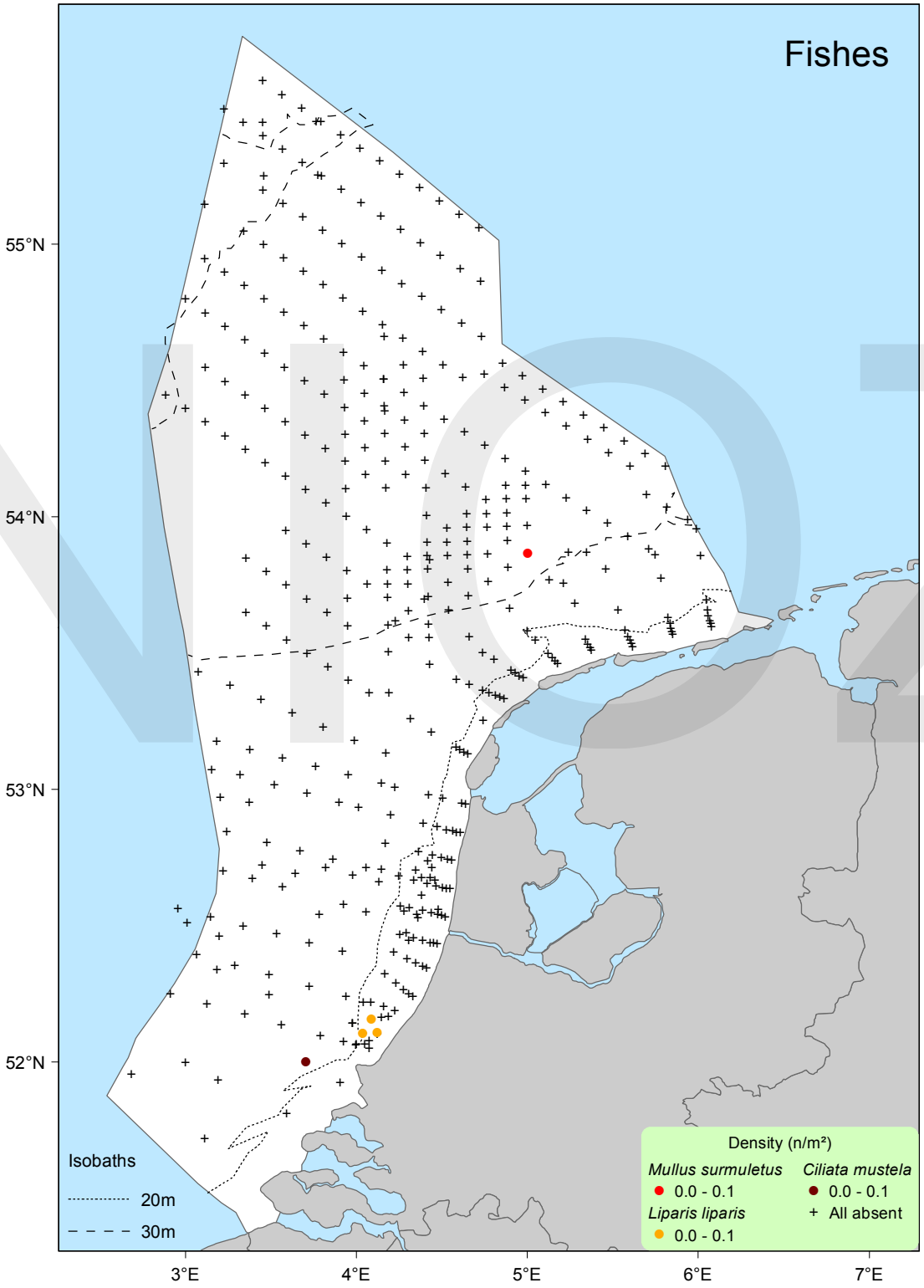

Branchiostoma lanceolatum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.30
0.000 - 0.001
0.001 - 0.001
0.001 - 0.003
0.003 - 0.007
0.007 - 0.022
0.022 - 0.080
0.080 - 0.298

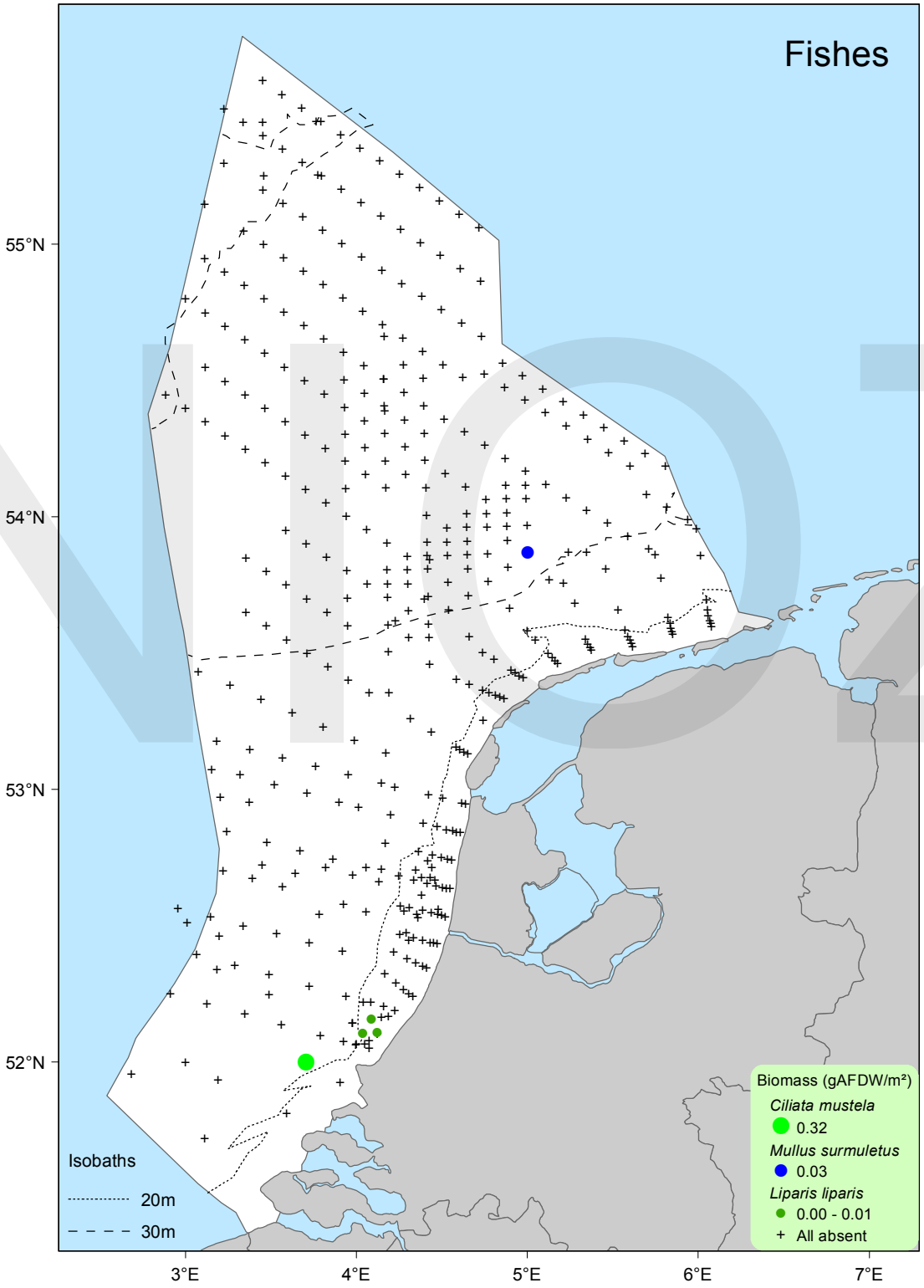

Pisces
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 25.0
25.0 - 20.0
0.1 - 0.7
0.7 - 1.1
1.1 - 1.8
1.8 - 3.1
3.1 - 5.6
5.6 - 10.5
10.5 - 20.0

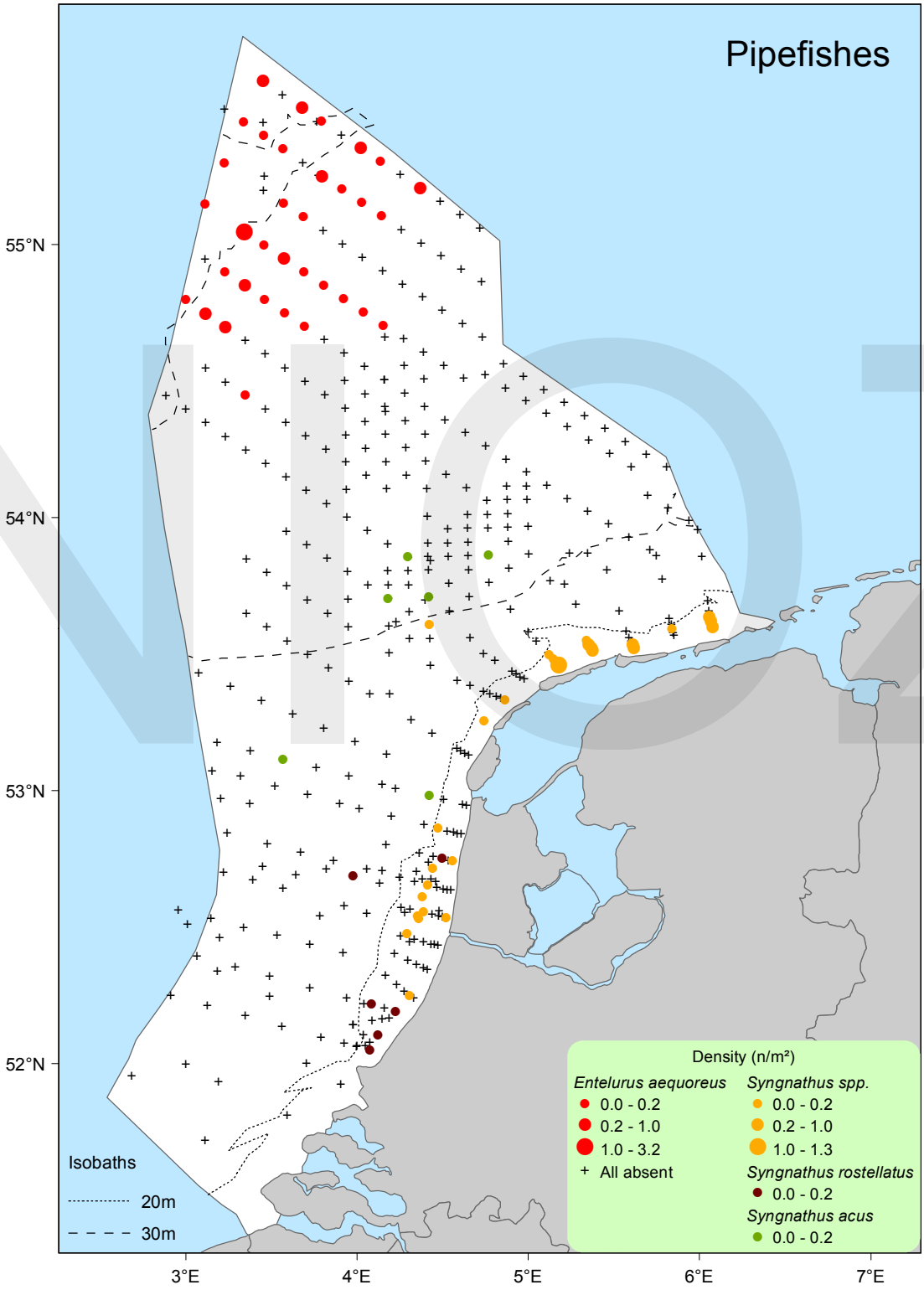

Pisces
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 17.51
0.0 - 1.2
1.2 - 1.7
1.7 - 1.8
1.8 - 2.2
2.2 - 3.4
3.4 - 7.0
7.0 - 17.5

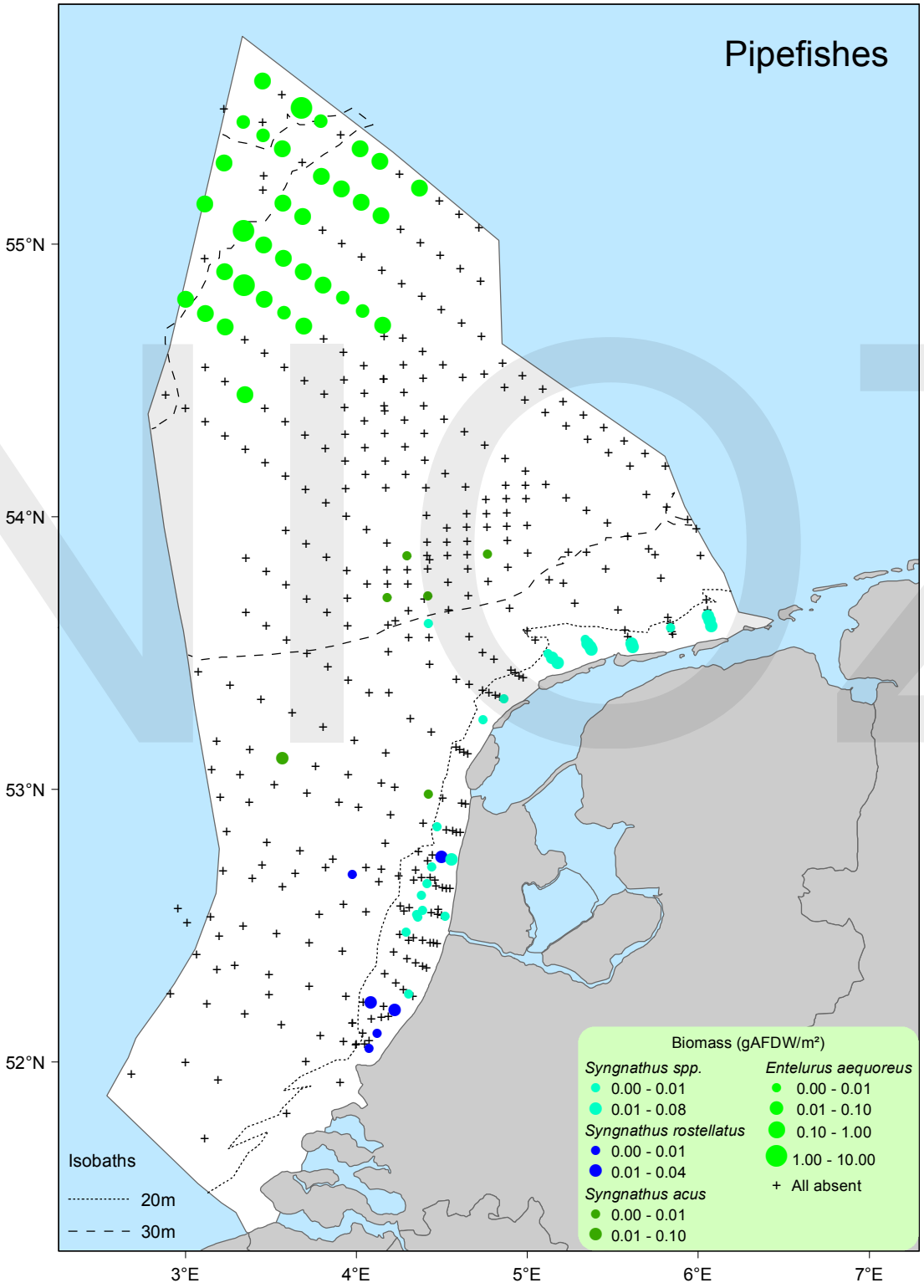

Enchelyopus cimbrius
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.5
0.00
0.00 - 0.01
0.01 - 0.03
0.03 - 0.06
0.06 - 0.12
0.12 - 0.25
0.25 - 0.50

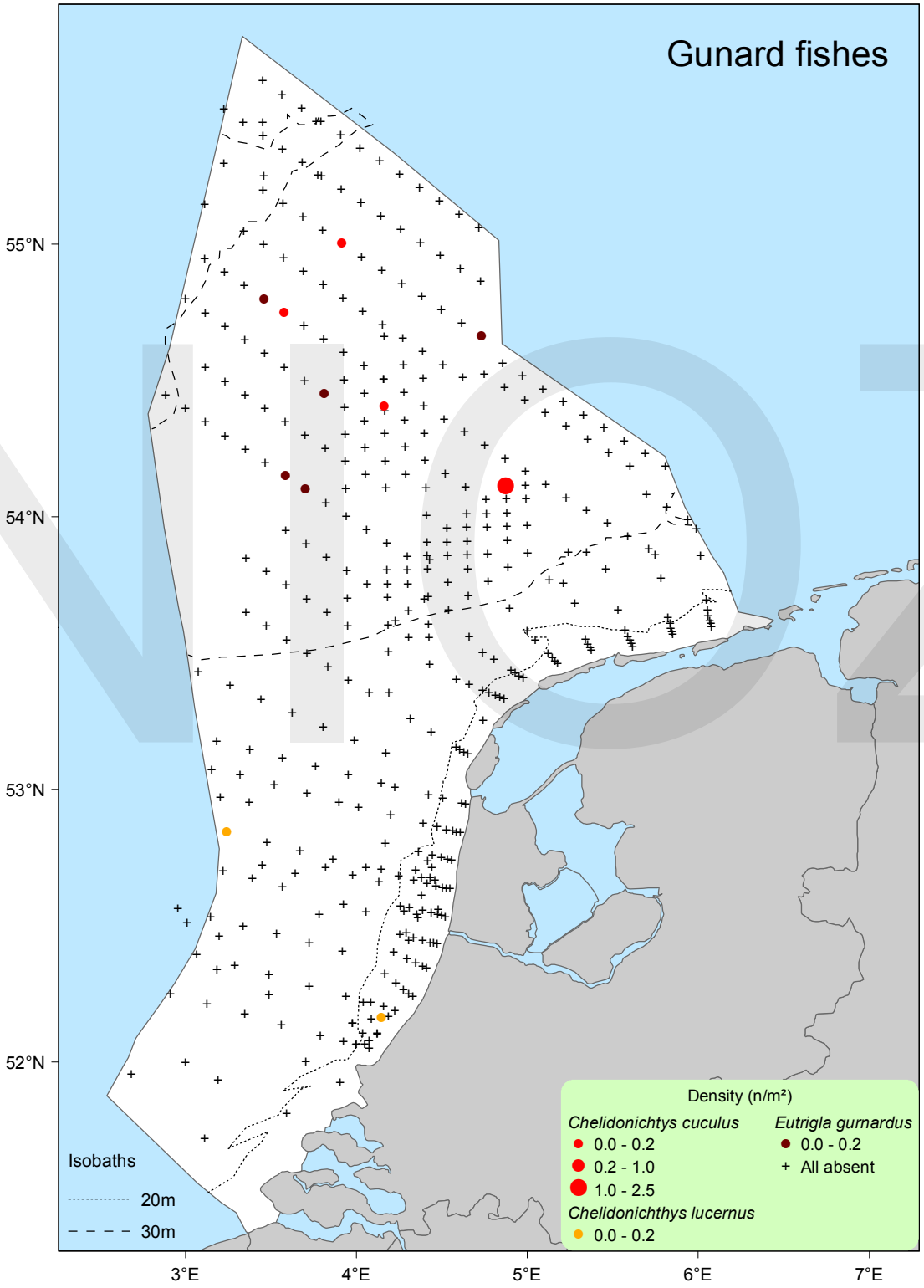

Enchelyopus cimbrius
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 7.32
0.000
0.000 - 0.001
0.001 - 0.005
0.005 - 0.021
0.021 - 0.083
0.083 - 0.332
0.332 - 1.318

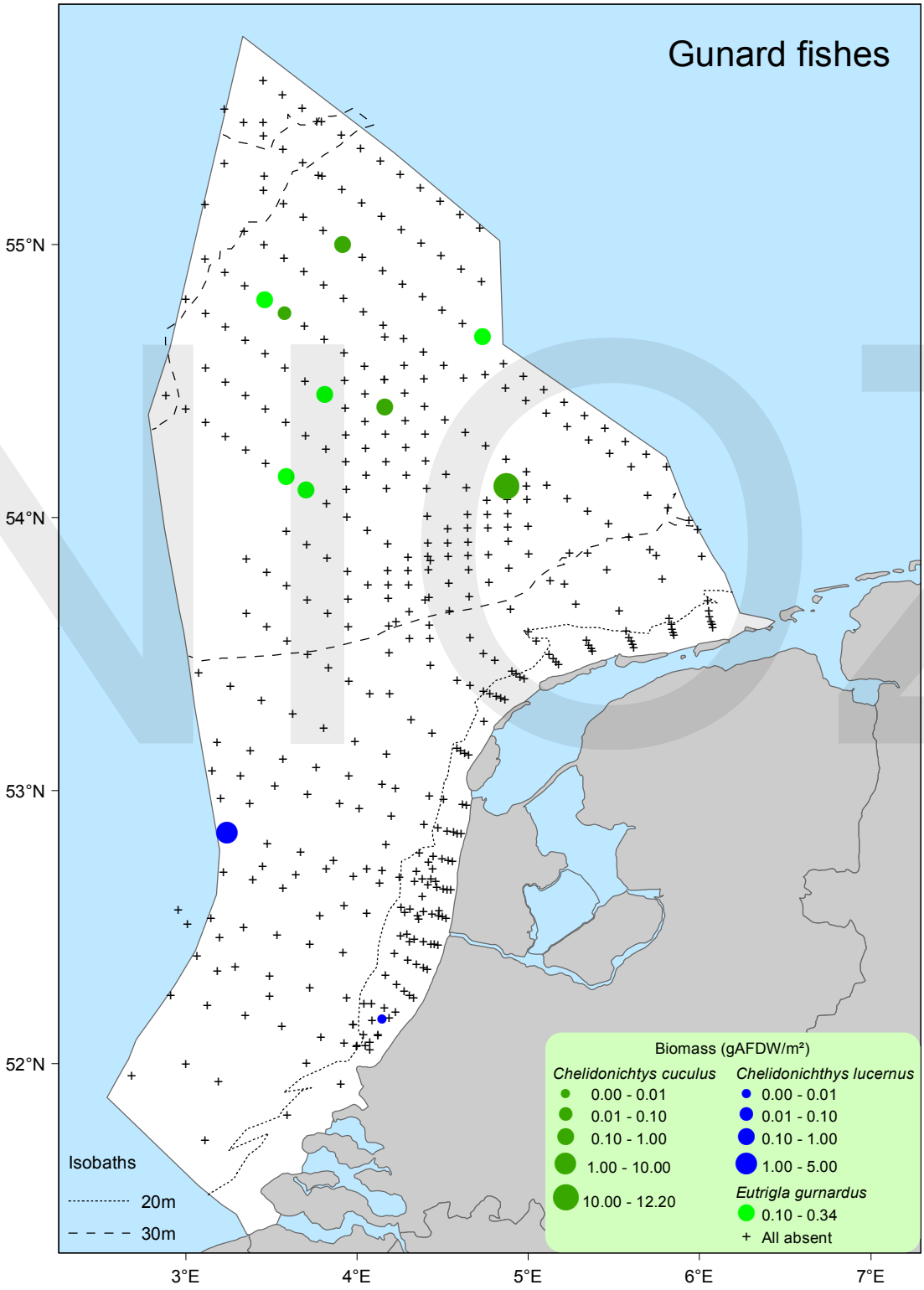

Fishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Mullus surmuletus
0.0 - 0.1
Ciliata mustela
0.0 - 0.1
Liparis liparis
0.0 - 0.1
All absent

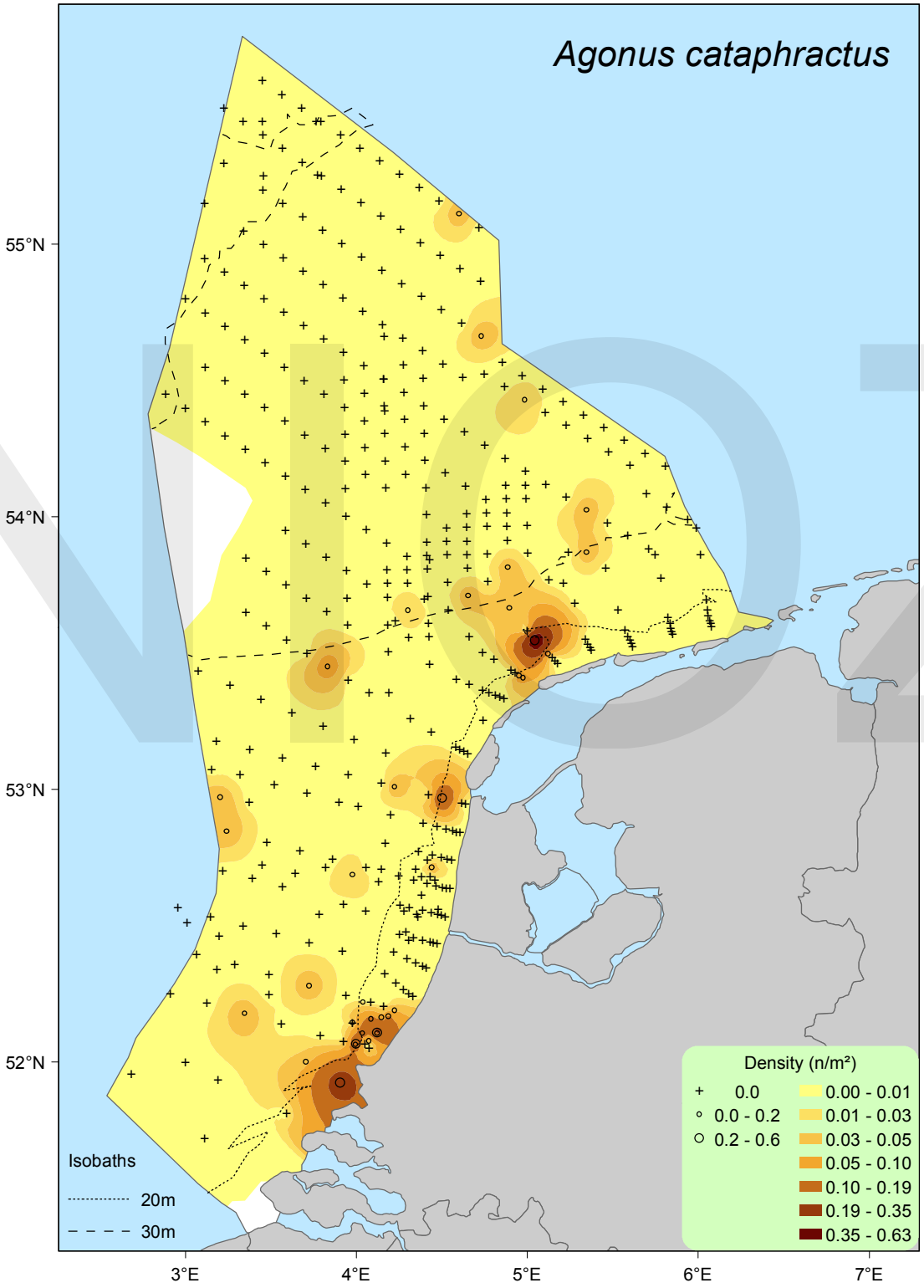

Fishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Ciliata mustela
0.32
Mullus surmuletus
0.03
Liparis liparis
0.00 - 0.01
All absent

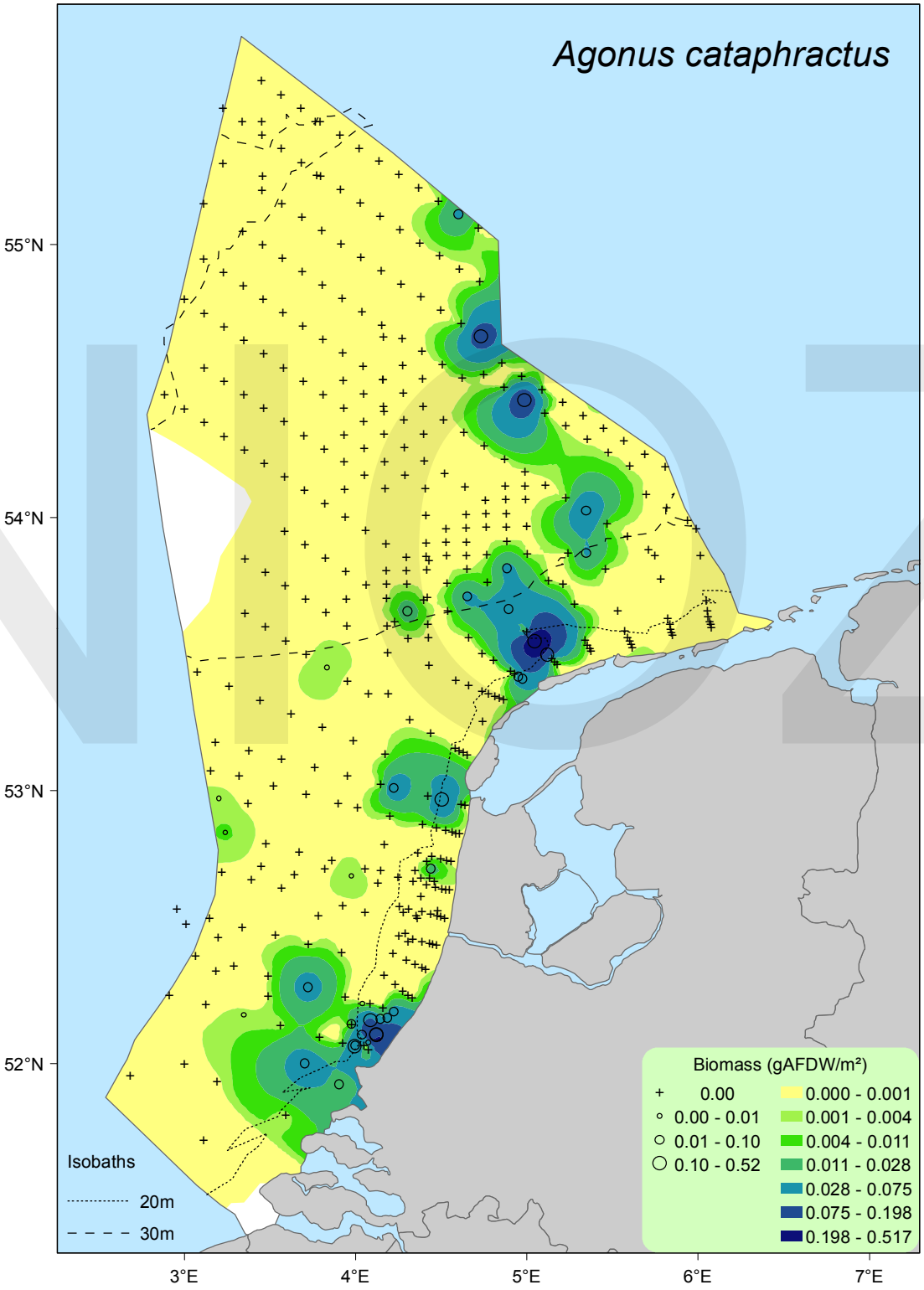

Pipefishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Entelurus aequoreus
0.0 - 0.2
0.2 - 1.0
1.0 - 3.2
All absent
Syngnathus spp.
0.0 - 0.2
0.2 - 1.0
1.0 - 1.3
Syngnathus rostellatus
0.0 - 0.2
Syngnathus acus
0.0 - 0.2

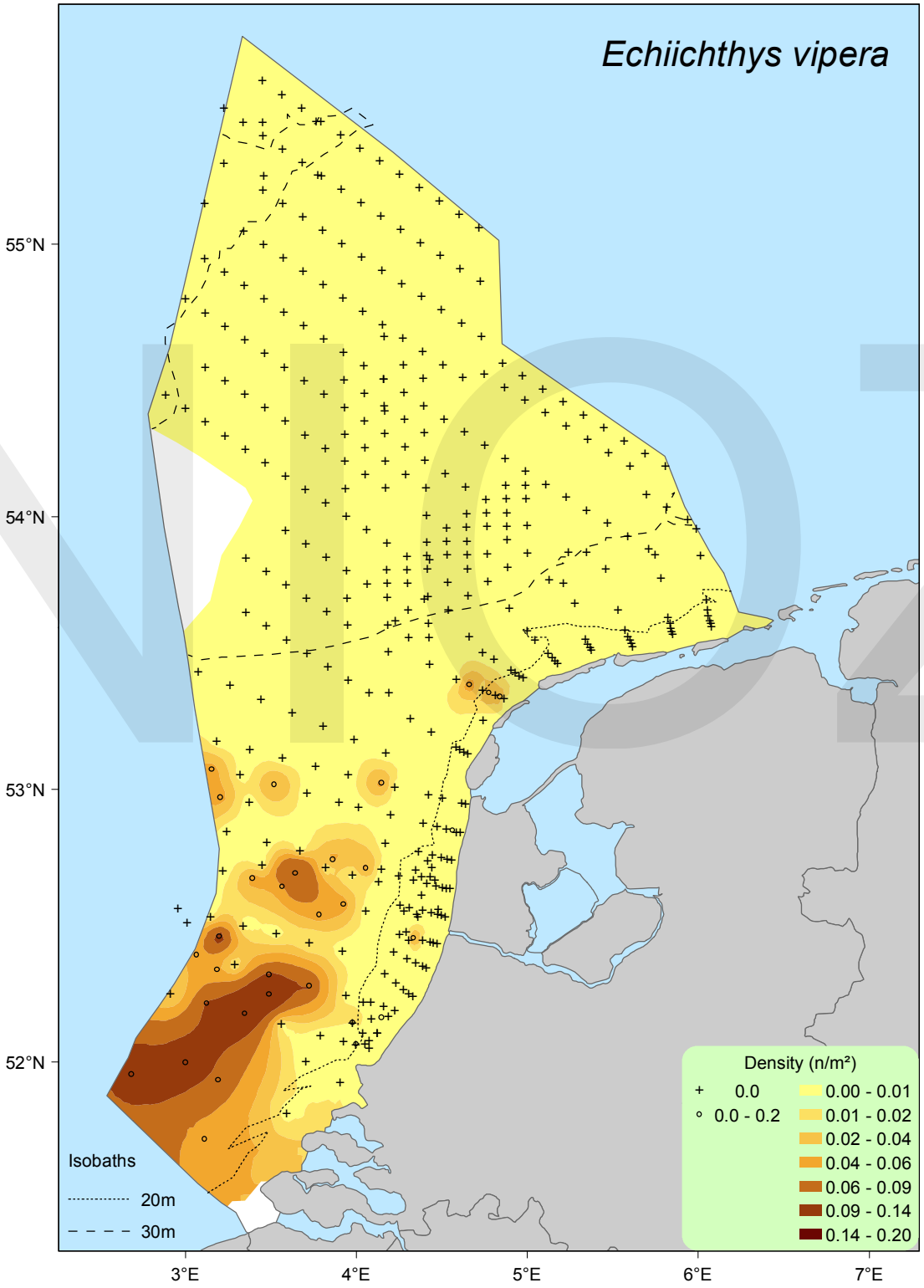

Pipefishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Syngnathus spp.
0.00 - 0.01
0.01 - 0.08
Syngnathus rostellatus
0.00 - 0.01
0.01 - 0.04
Syngnathus acus
0.00 - 0.01
0.01 - 0.10
Entelurus aequoreus
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
+ All absent

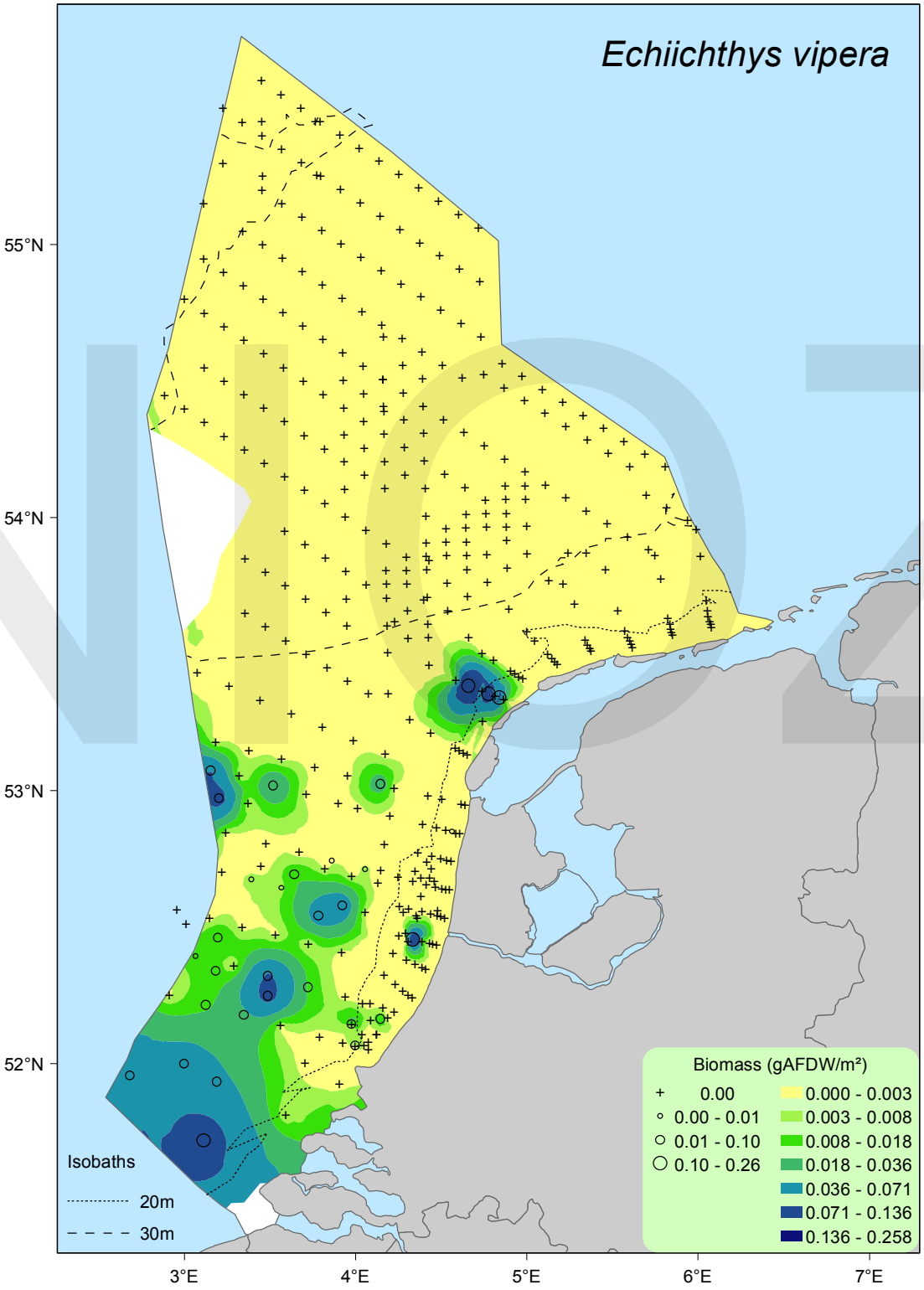

Gunard fishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Chelidonichtys cuculus
0.0 - 0.2
0.2 - 1.0
1.0 - 2.5
Chelidonichthys lucernus
0.0 - 0.2
Eutrigla gurnardus
0.0 - 0.2
All absent

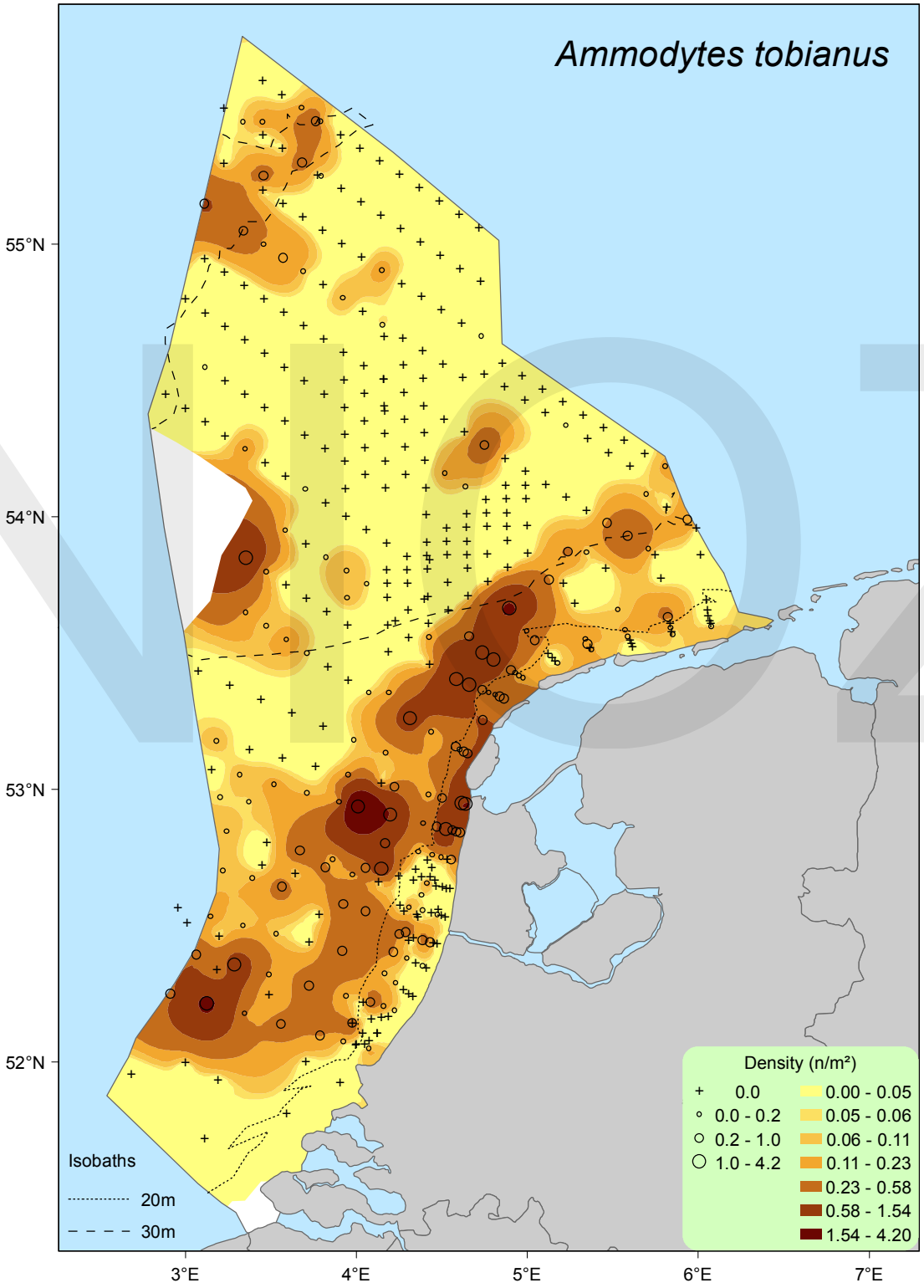

Gunard fishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Chelidonichtys cuculus
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 12.20
Chelidonichthys lucernus
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 5.00
Eutrigla gurnardus
0.10 - 0.34
+ All absent

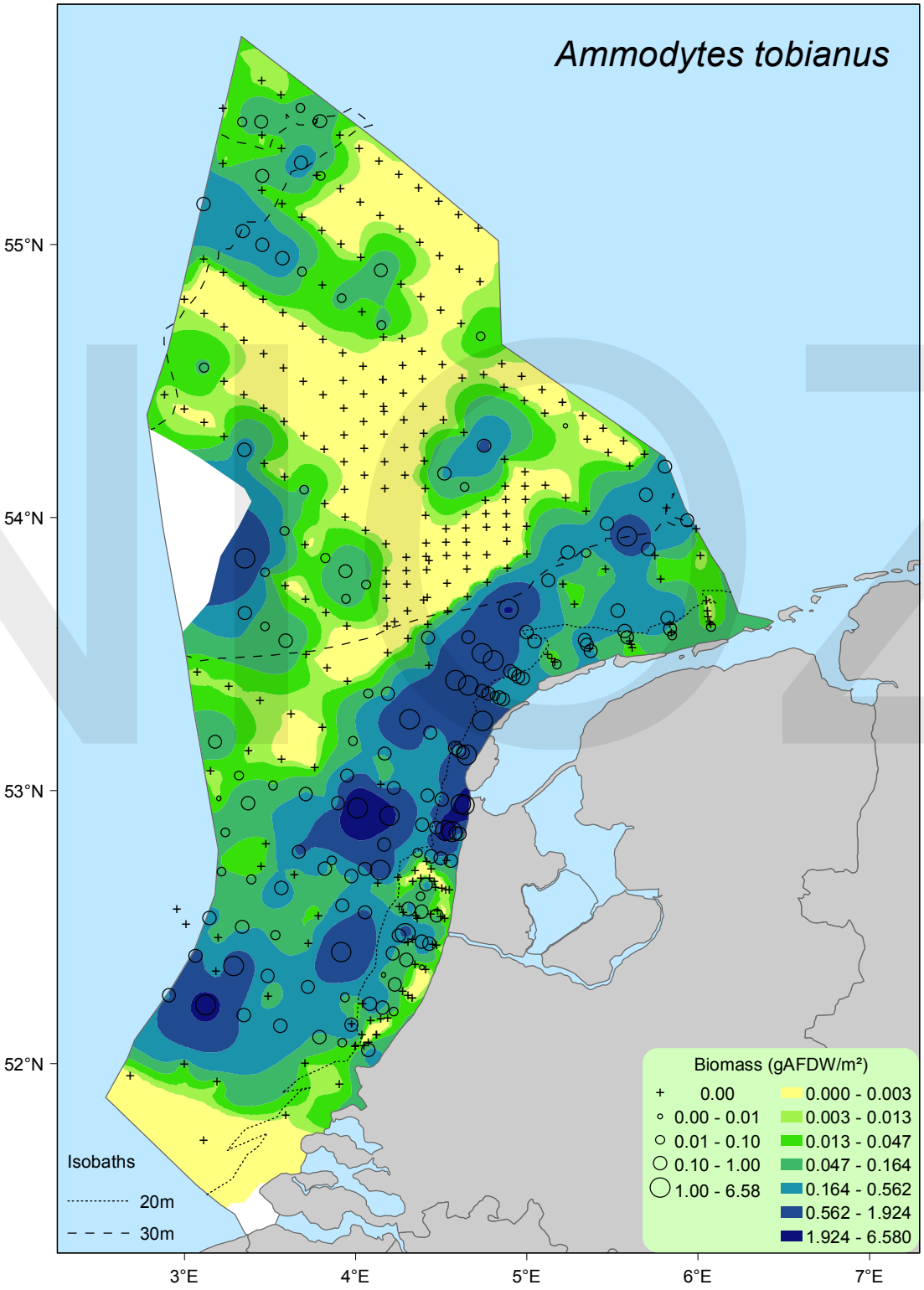

Agonus cataphractus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.6
0.00 - 0.01
0.01 - 0.03
0.03 - 0.05
0.05 - 0.10
0.10 - 0.19
0.19 - 0.35
0.35 - 0.63

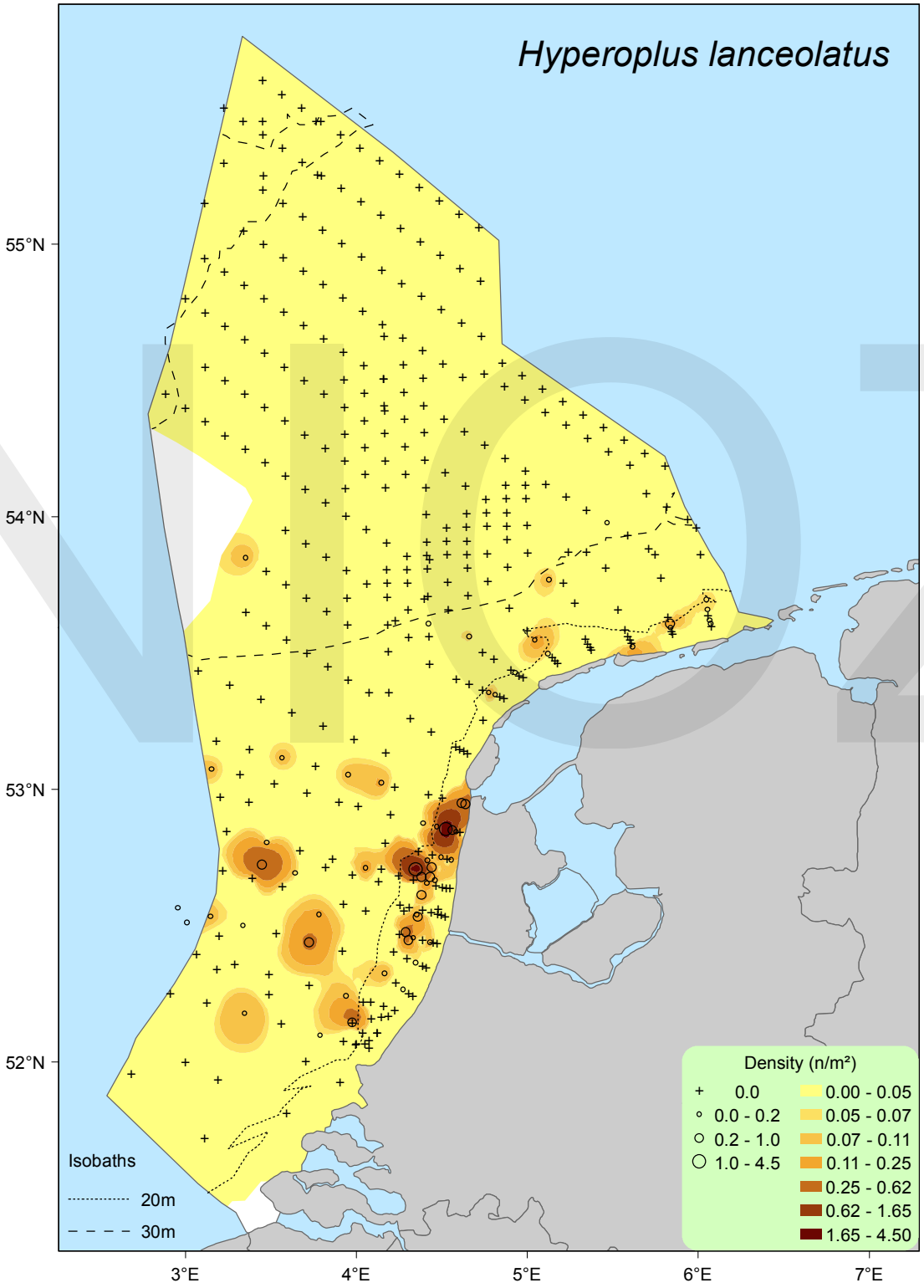

Agonus cataphractus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.52
0.000 - 0.001
0.001 - 0.004
0.004 - 0.011
0.011 - 0.028
0.028 - 0.075
0.075 - 0.198
0.198 - 0.517

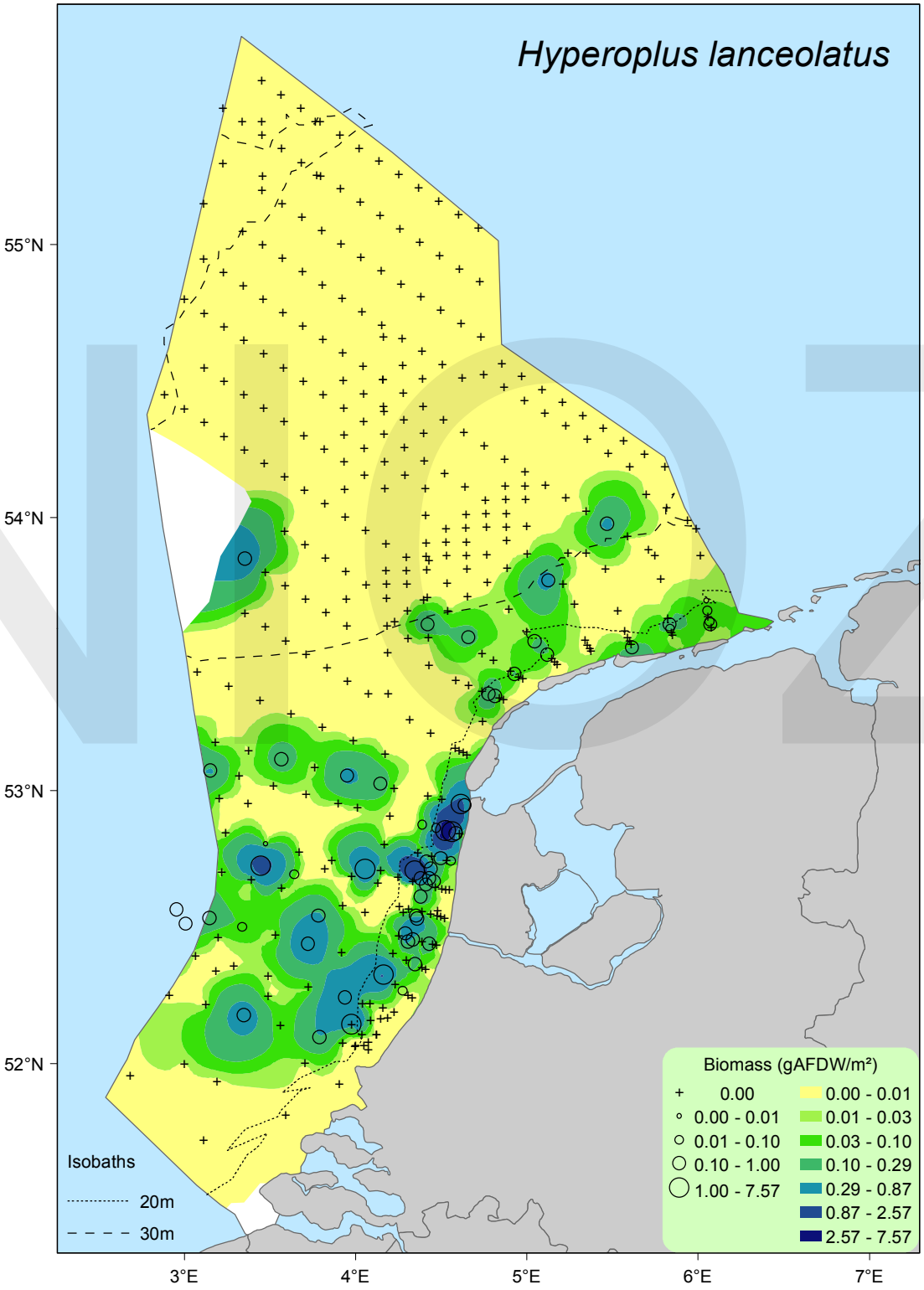

Echiichthys vipera
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.00 - 0.01
0.01 - 0.02
0.02 - 0.04
0.04 - 0.06
0.06 - 0.09
0.09 - 0.14
0.14 - 0.20

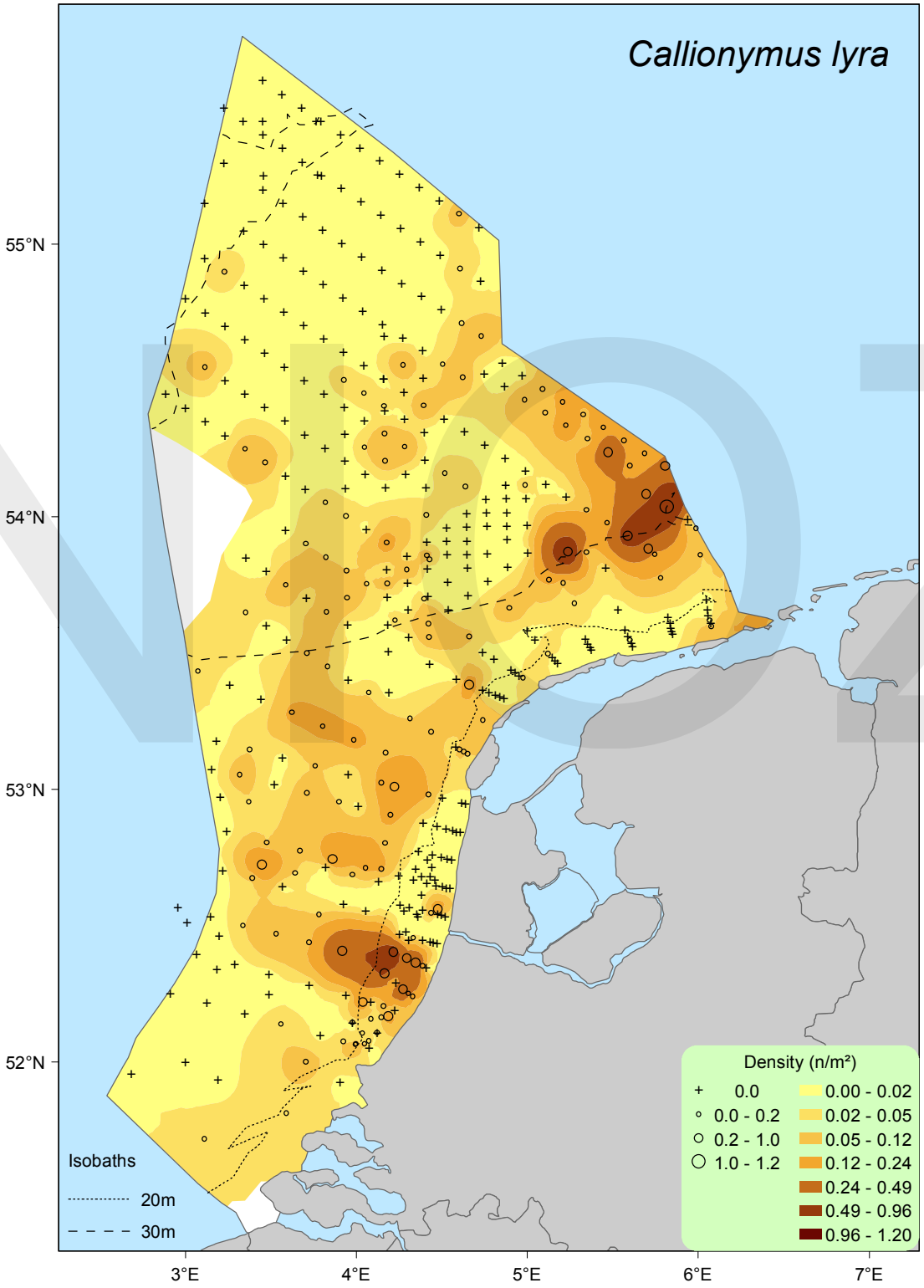

Echiichthys vipera
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.26
0.000 - 0.003
0.003 - 0.008
0.008 - 0.018
0.018 - 0.036
0.036 - 0.071
0.071 - 0.136
0.136 - 0.258

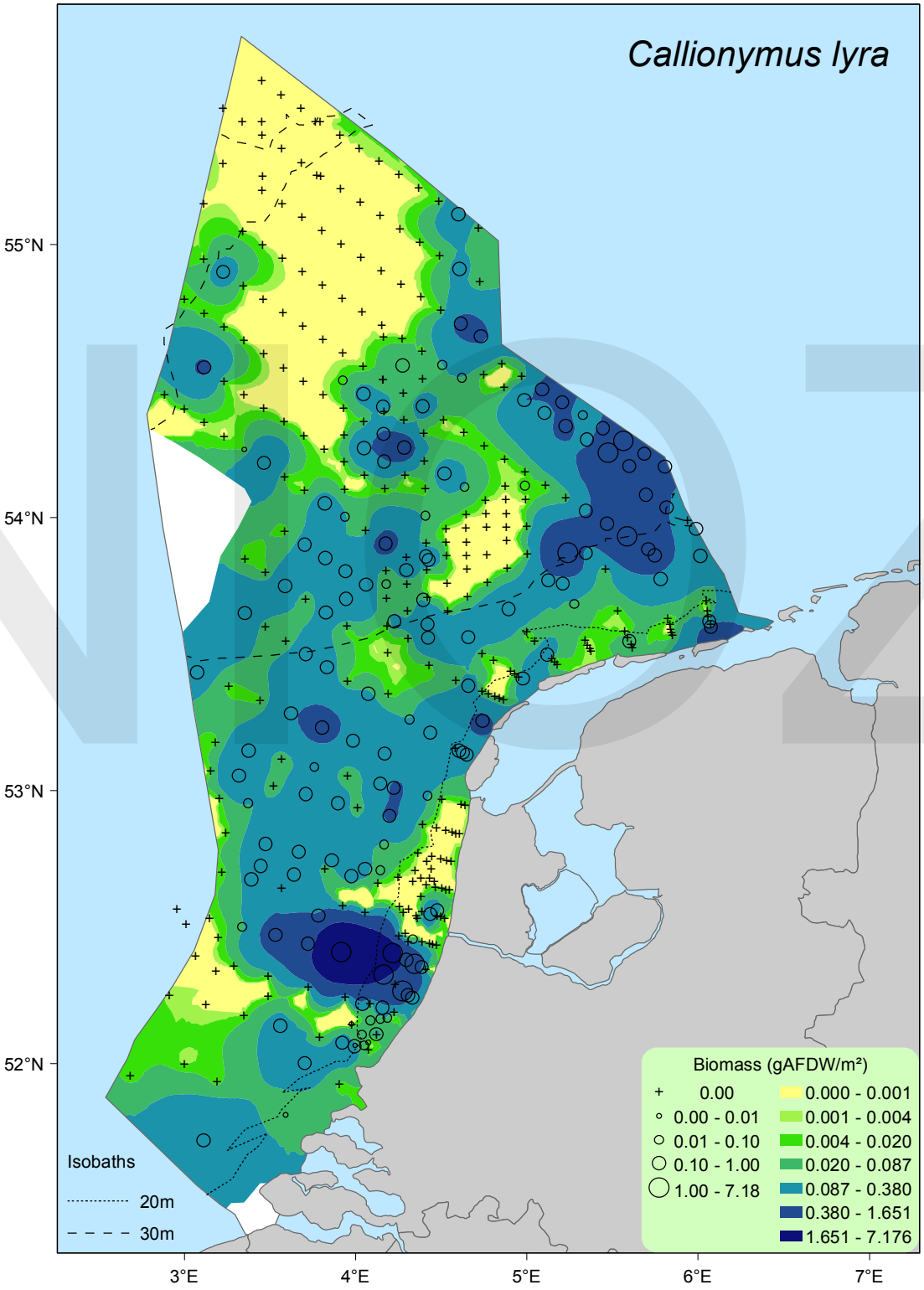

Ammodytes tobianus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 4.2
0.00 - 0.05
0.05 - 0.06
0.06 - 0.11
0.11 - 0.23
0.23 - 0.58
0.58 - 1.54
1.54 - 4.20

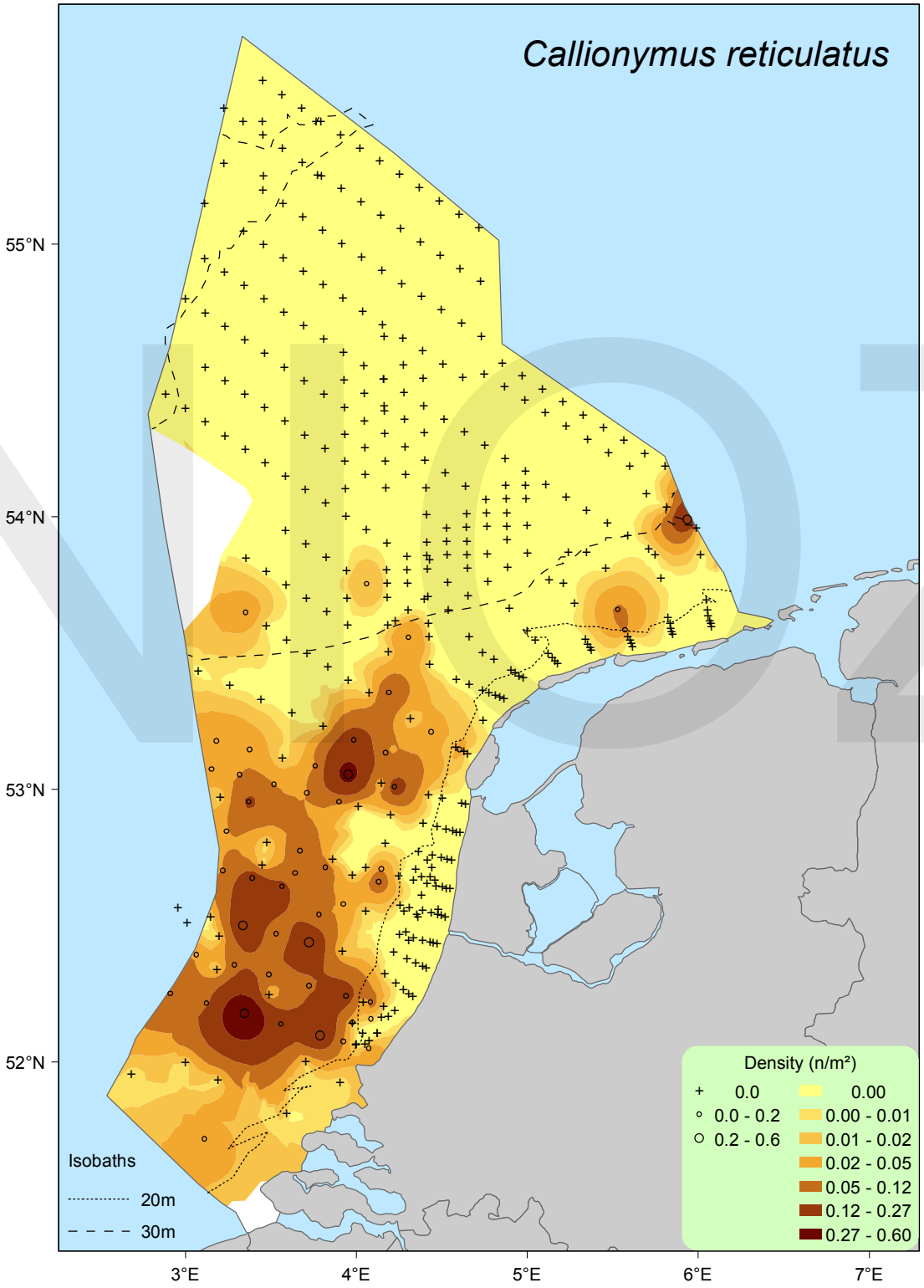

Ammodytes tobianus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 6.58
0.000 - 0.003
0.003 - 0.013
0.013 - 0.047
0.047 - 0.164
0.164 - 0.562
0.562 - 1.924
1.924 - 6.580

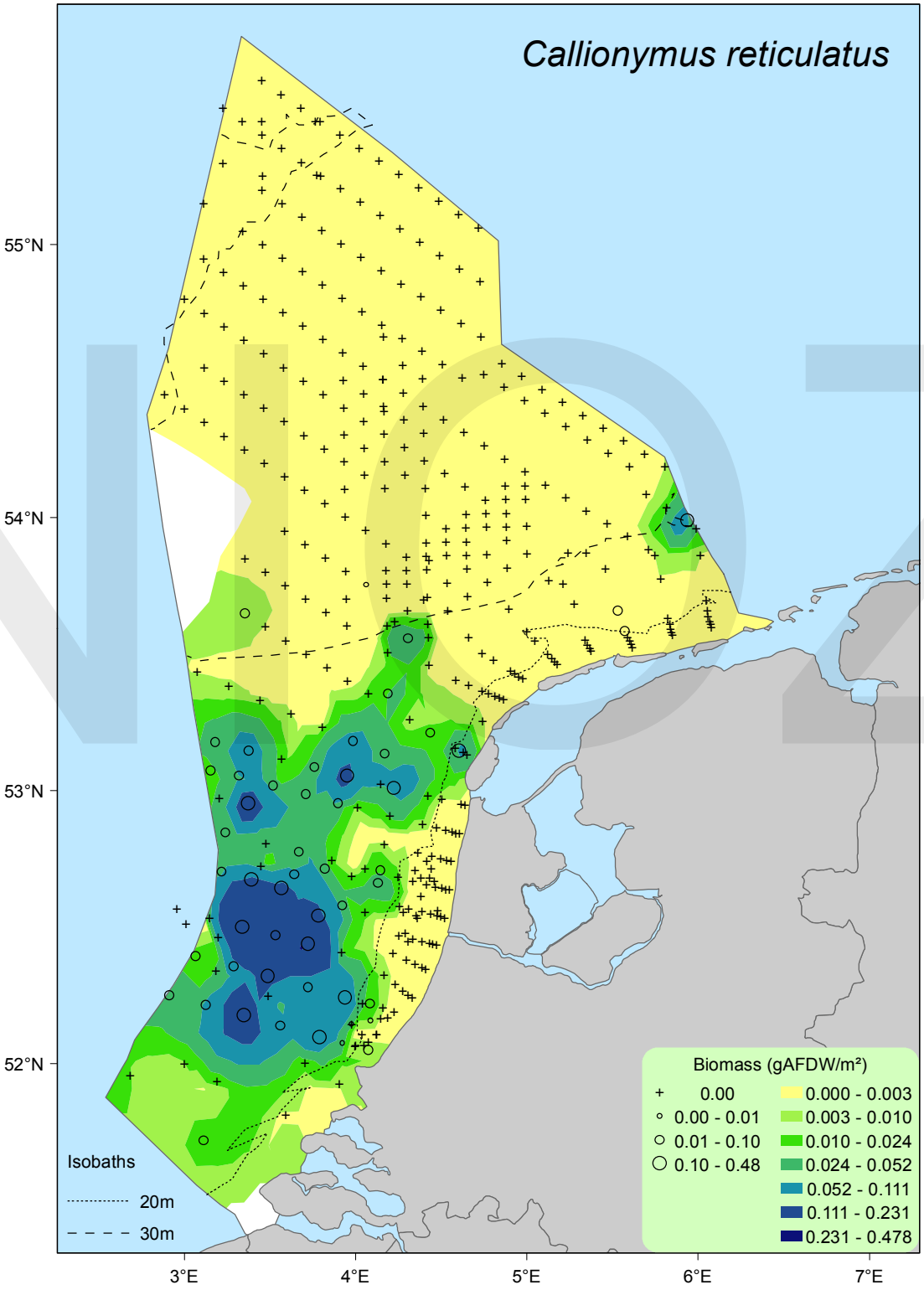

Hyperoplus lanceolatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 4.5
0.00 - 0.05
0.05 - 0.07
0.07 - 0.11
0.11 - 0.25
0.25 - 0.62
0.62 - 1.65
1.65 - 4.50

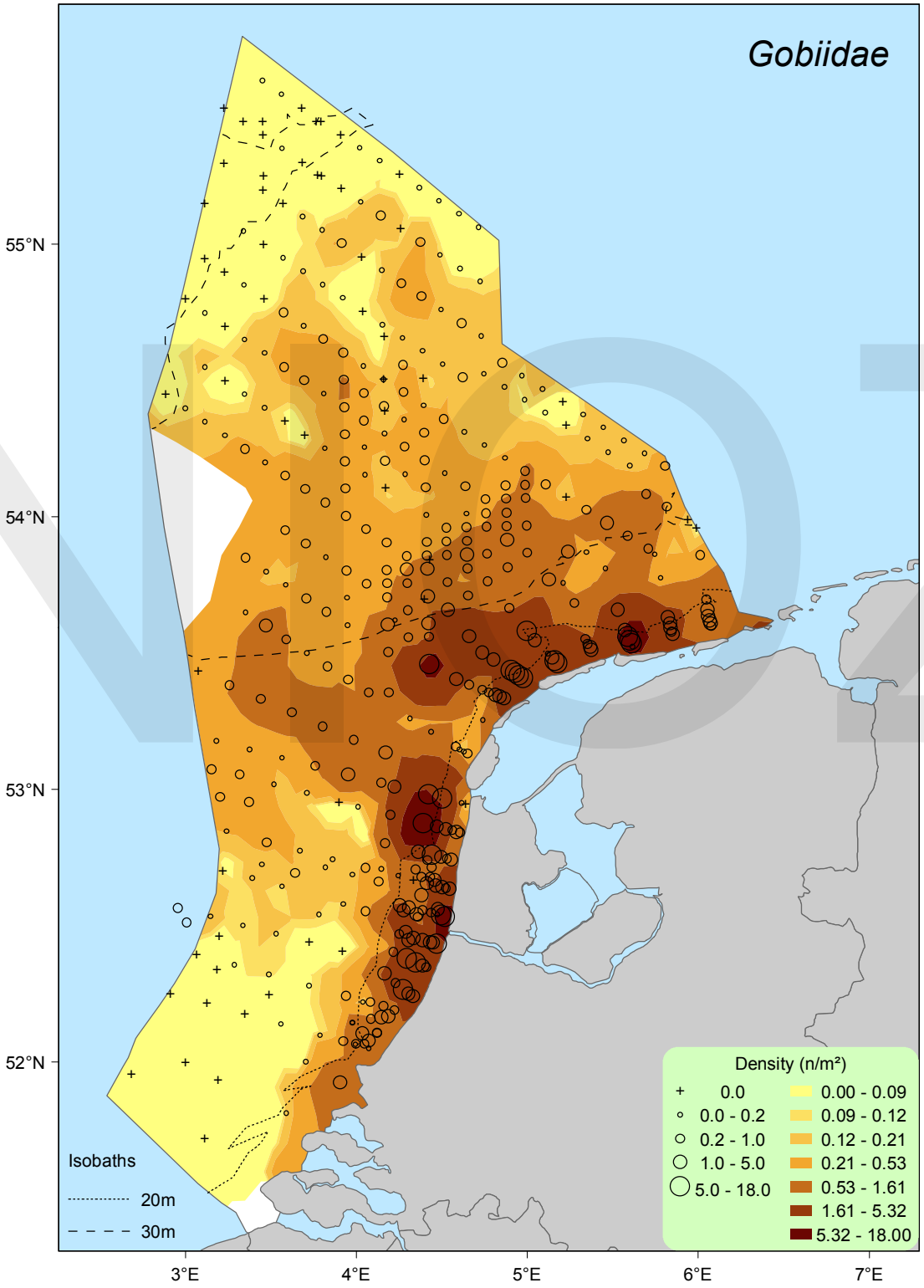

Hyperoplus lanceolatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 7.57
0.00 - 0.01
0.01 - 0.03
0.03 - 0.10
0.10 - 0.29
0.29 - 0.87
0.87 - 2.57
2.57 - 7.57

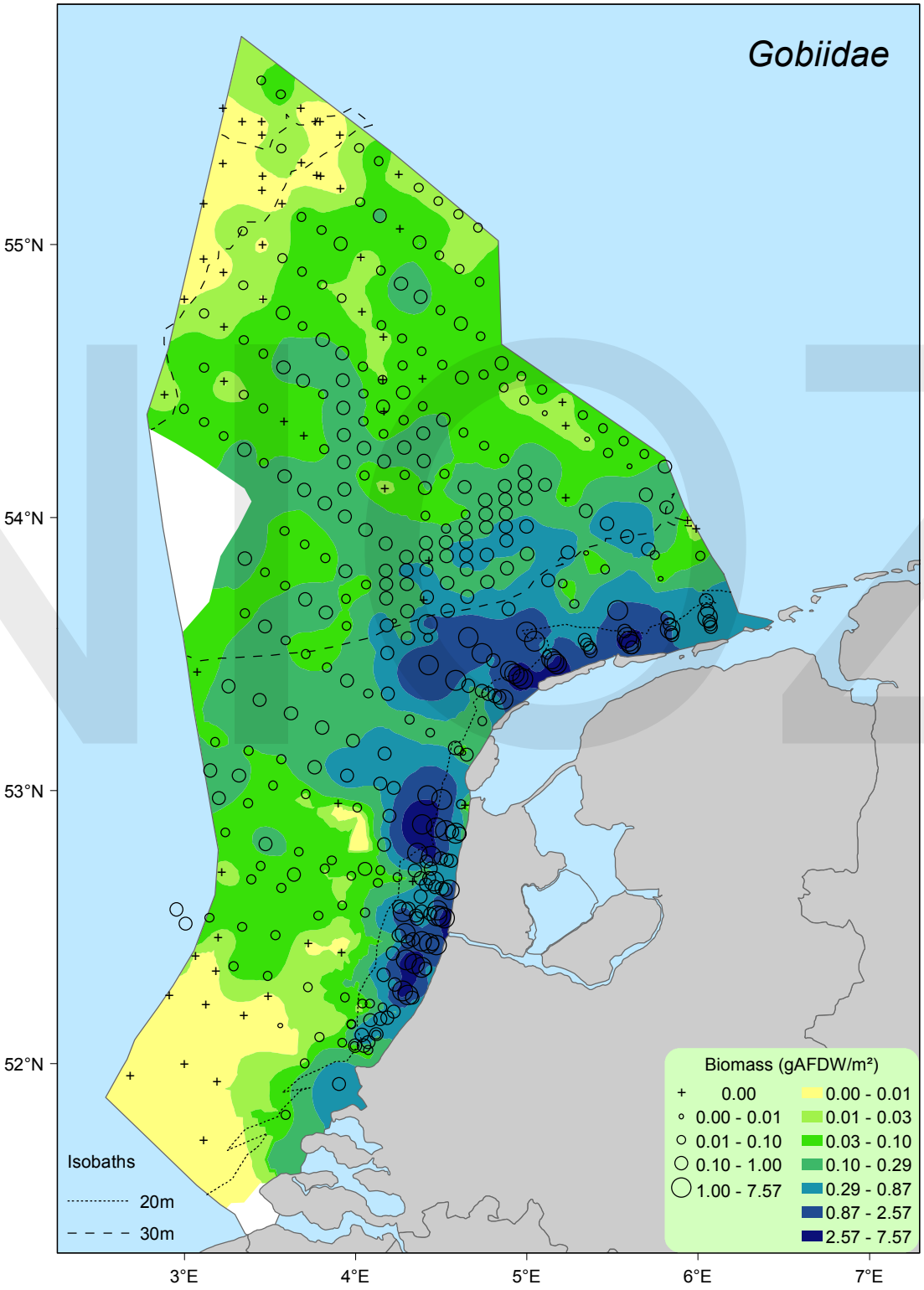

Callionymus lyra
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 1.2
0.00 - 0.02
0.02 - 0.05
0.05 - 0.12
0.12 - 0.24
0.24 - 0.49
0.49 - 0.96
0.96 - 1.20

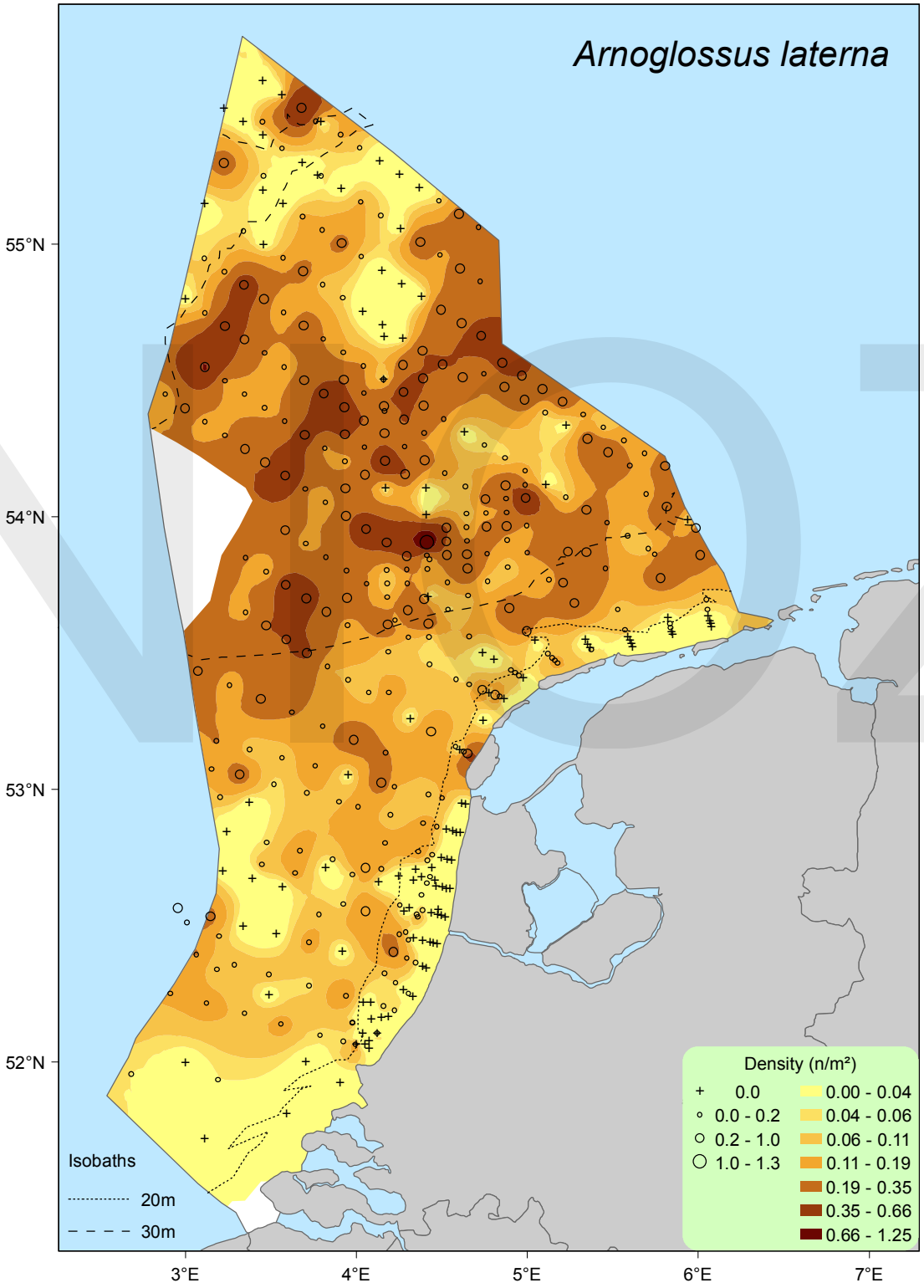

Callionymus lyra
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 7.18
0.000 - 0.001
0.001 - 0.004
0.004 - 0.020
0.020 - 0.087
0.087 - 0.380
0.380 - 1.651
1.651 - 7.176

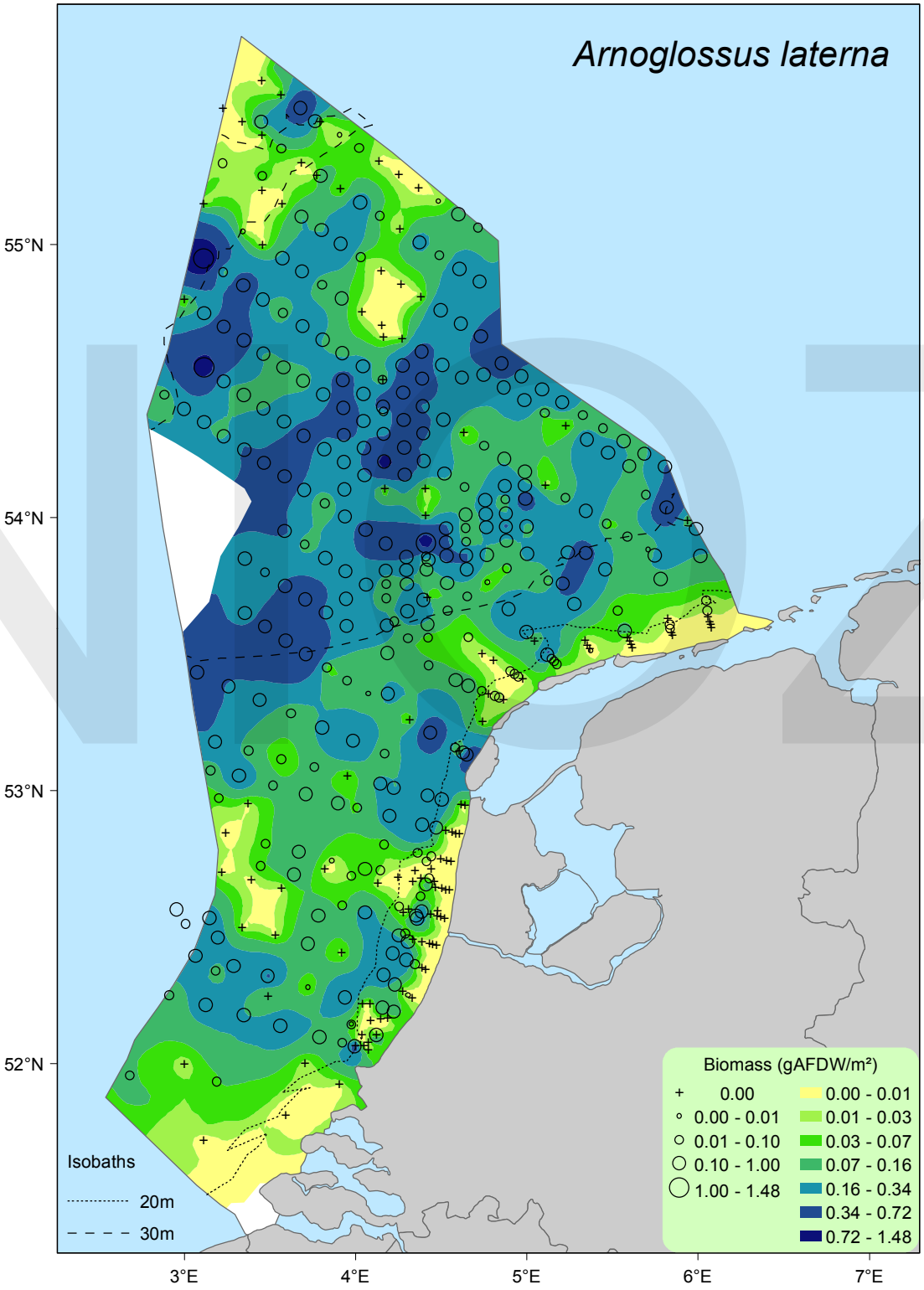

Callionymus reticulatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.6
0.00
0.00 - 0.01
0.01 - 0.02
0.02 - 0.05
0.05 - 0.12
0.12 - 0.27
0.27 - 0.60

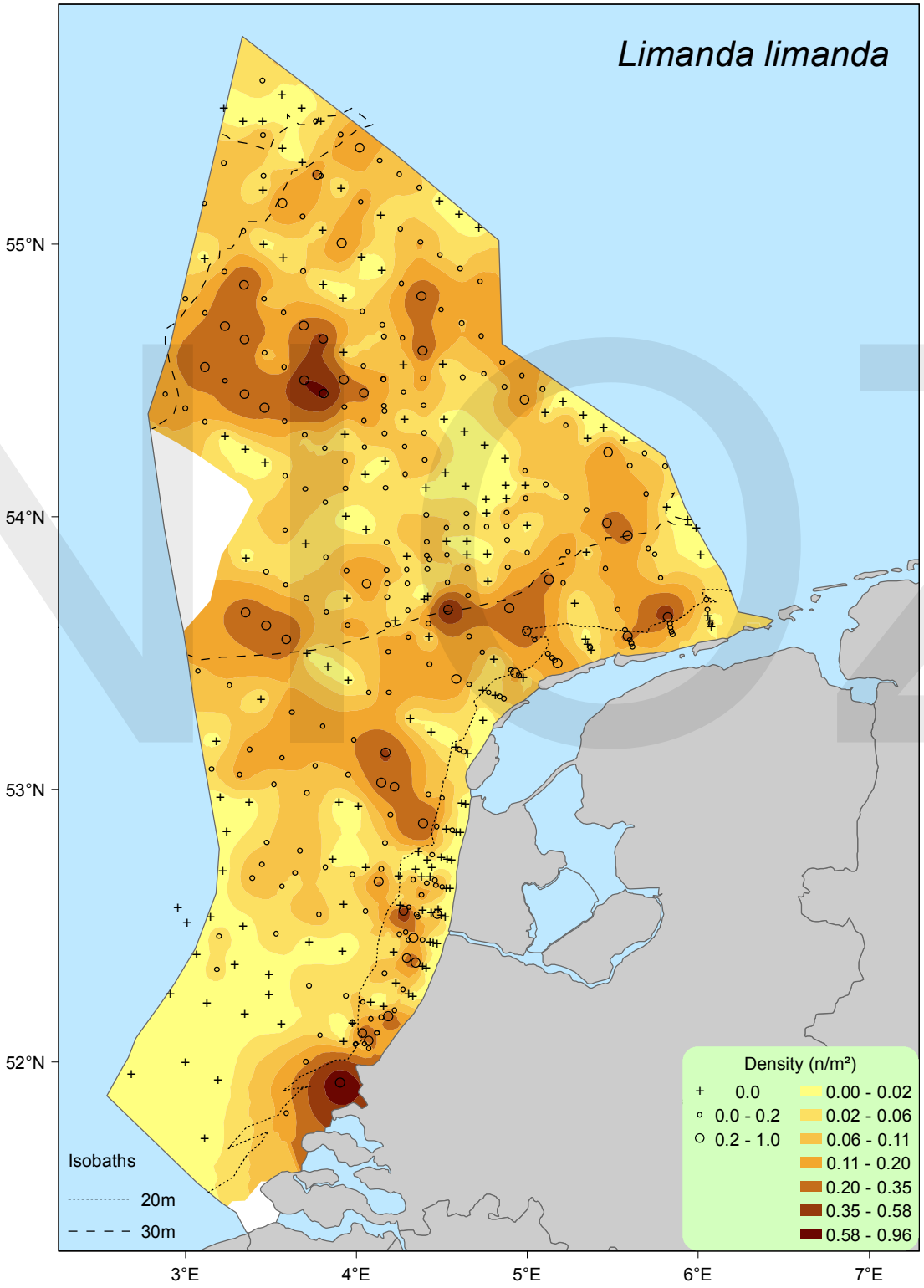

Callionymus reticulatus
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 0.48
0.000 - 0.003
0.003 - 0.010
0.010 - 0.024
0.024 - 0.052
0.052 - 0.111
0.111 - 0.231
0.231 - 0.478

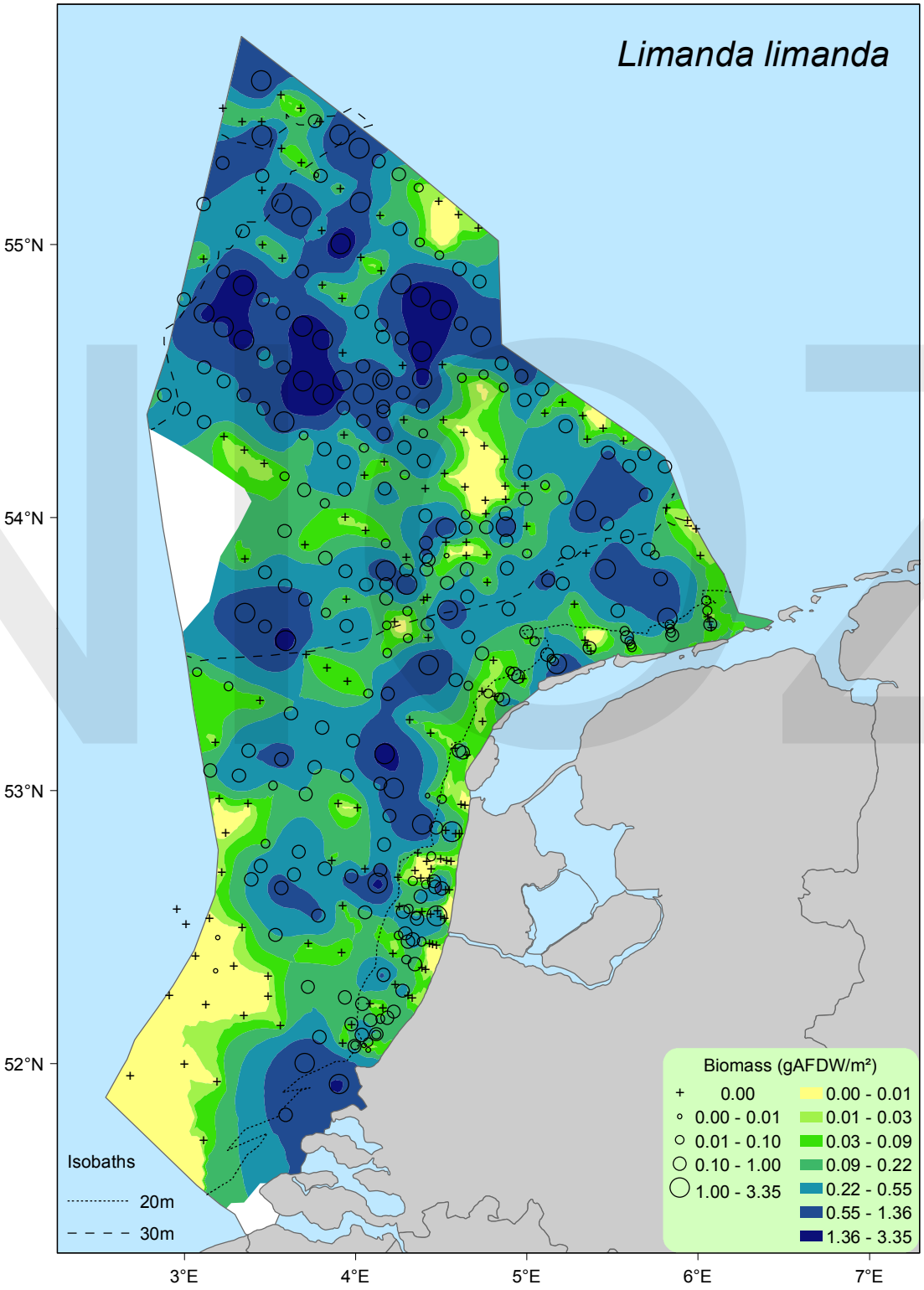

Gobiidae
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 18.0
0.00 - 0.09
0.09 - 0.12
0.12 - 0.21
0.21 - 0.53
0.53 - 1.61
1.61 - 5.32
5.32 - 18.00

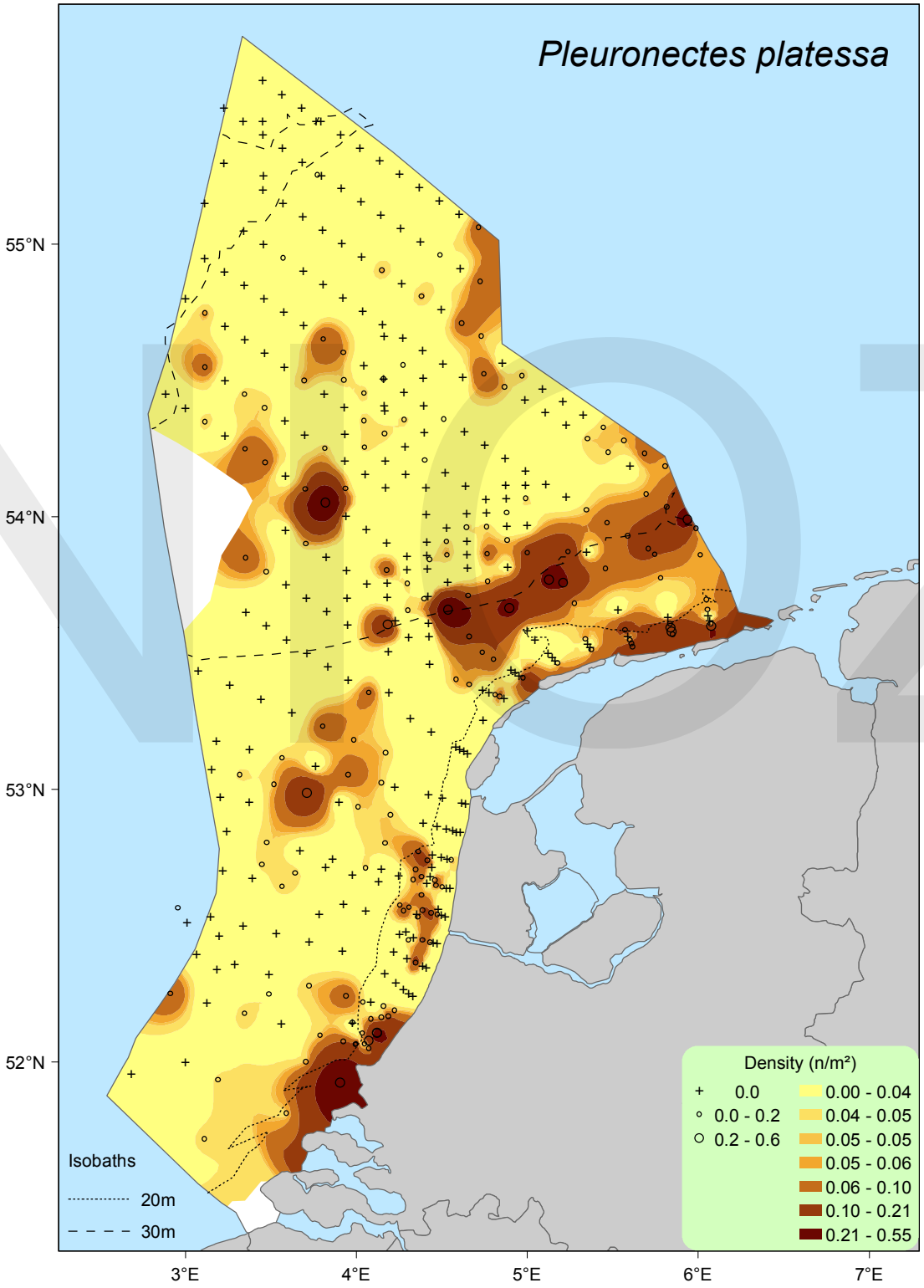

Gobiidae
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 7.57
0.00 - 0.01
0.01 - 0.03
0.03 - 0.10
0.10 - 0.29
0.29 - 0.87
0.87 - 2.57
2.57 - 7.57

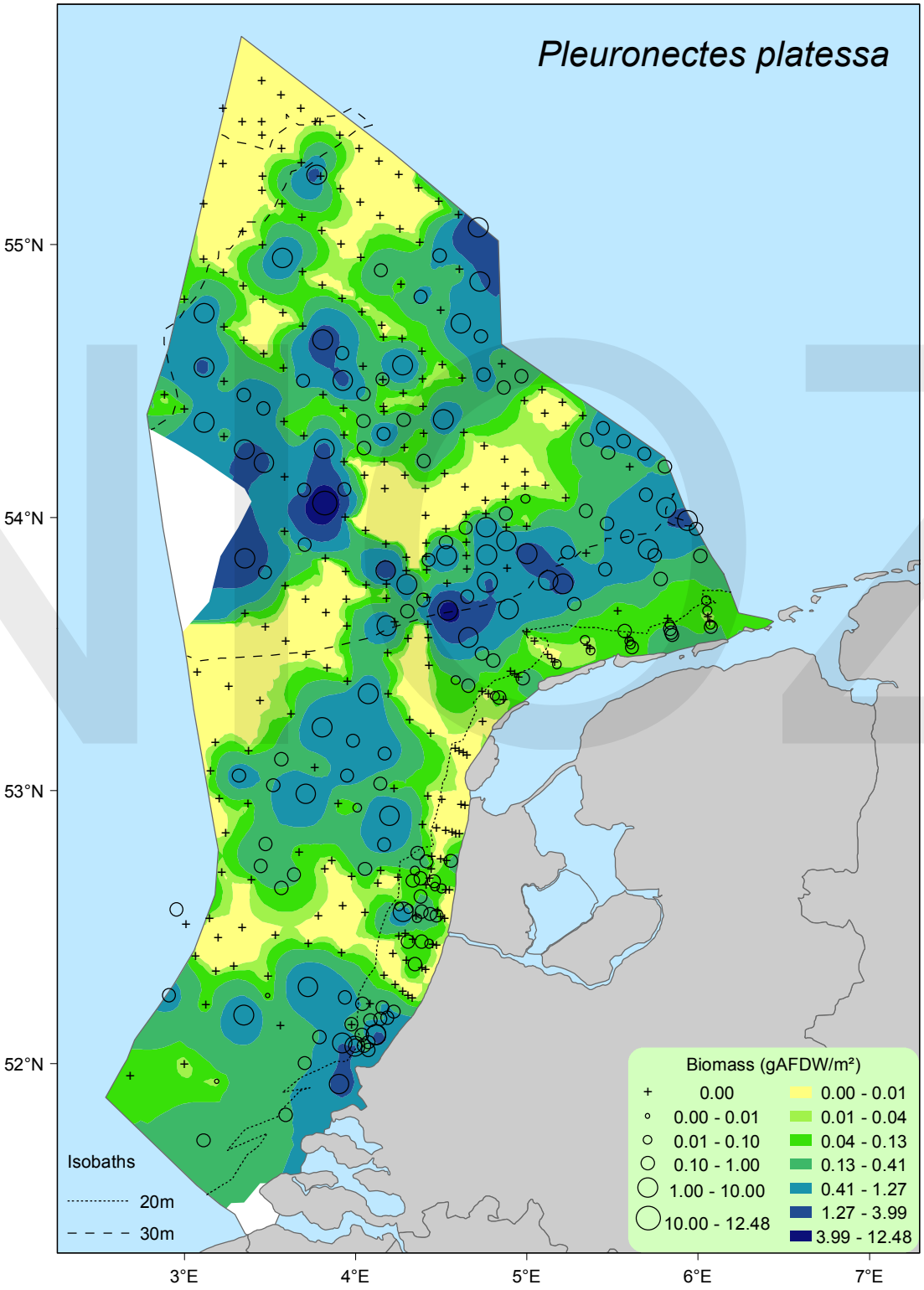

Arnoglossus laterna
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 1.3
0.00 - 0.04
0.04 - 0.06
0.06 - 0.11
0.11 - 0.19
0.19 - 0.35
0.35 - 0.66
0.66 - 1.25

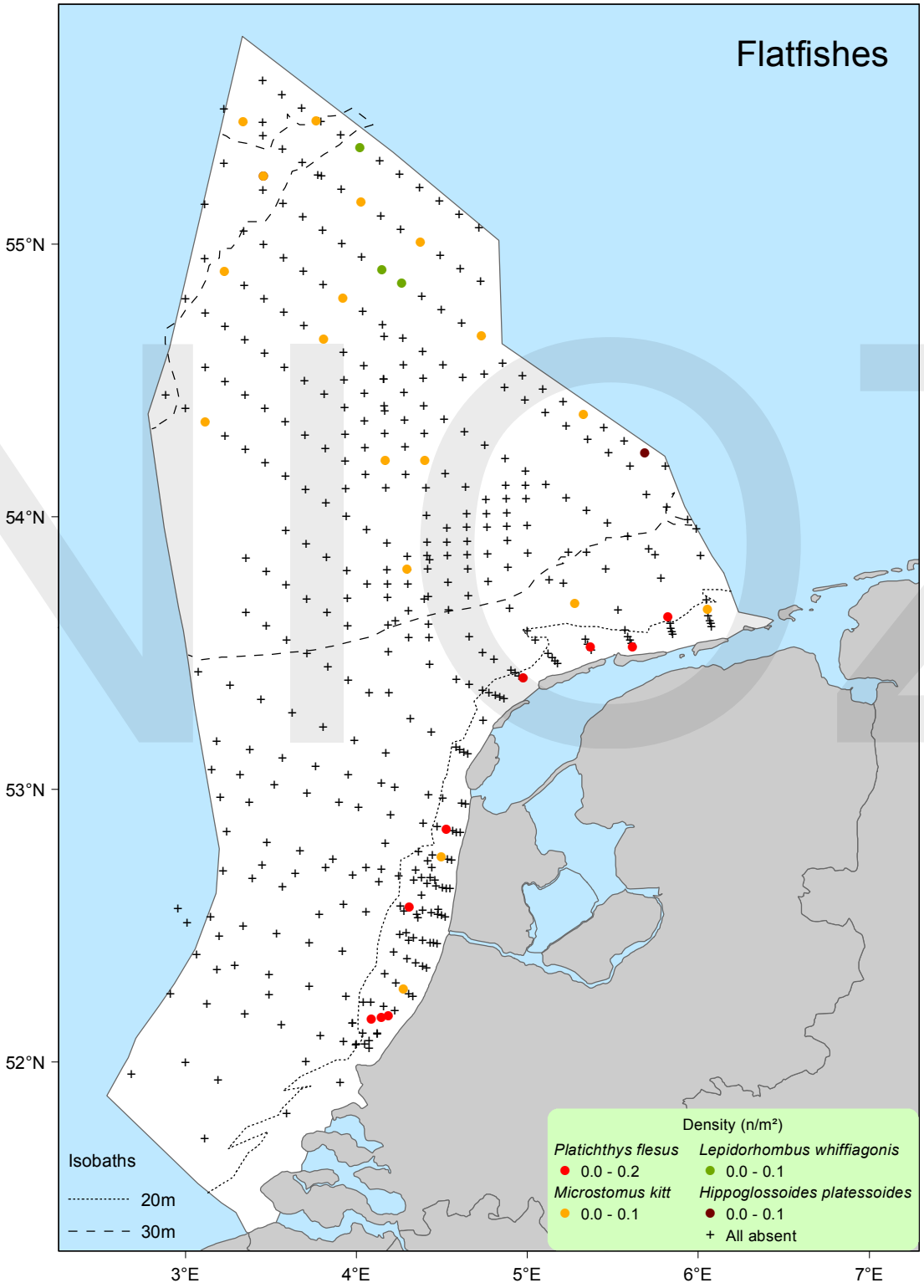

Arnoglossus laterna
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 1.48
0.00 - 0.01
0.01 - 0.03
0.03 - 0.07
0.07 - 0.16
0.16 - 0.34
0.34 - 0.72
0.72 - 1.48

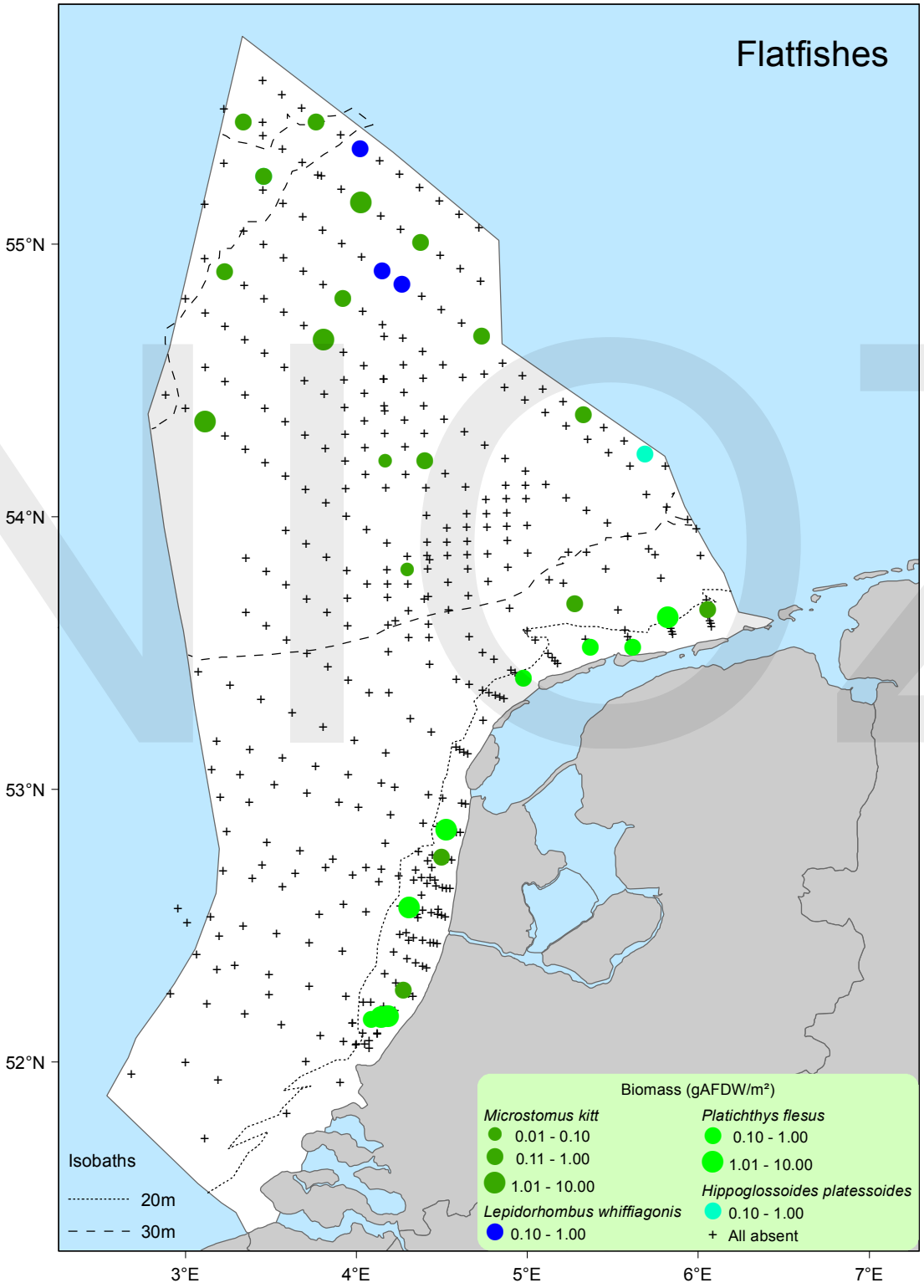

Limanda limanda
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
0.00 - 0.02
0.02 - 0.06
0.06 - 0.11
0.11 - 0.20
0.20 - 0.35
0.35 - 0.58
0.58 - 0.96

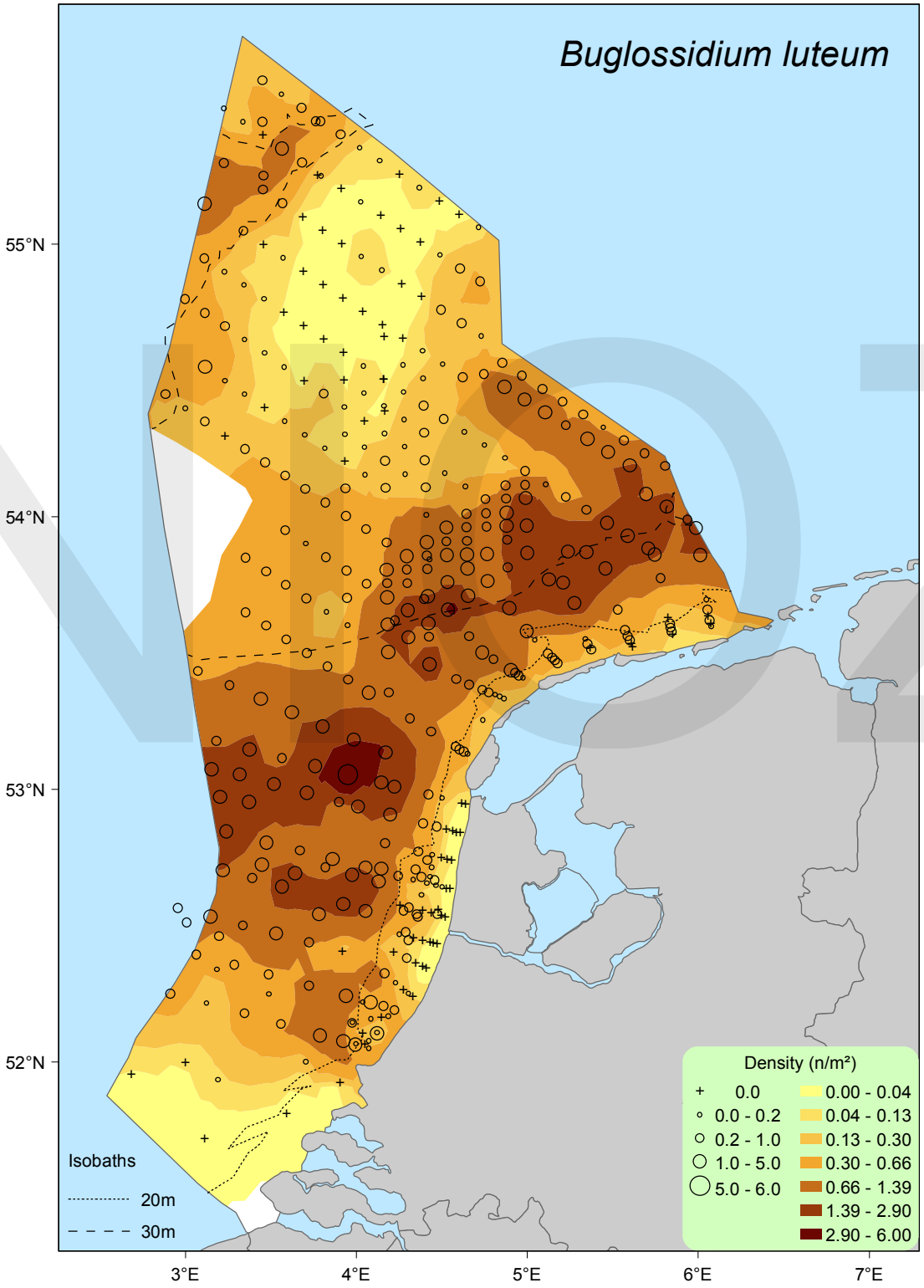

Limanda limanda
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 3.35
0.00 - 0.01
0.01 - 0.03
0.03 - 0.09
0.09 - 0.22
0.22 - 0.55
0.55 - 1.36
1.36 - 3.35

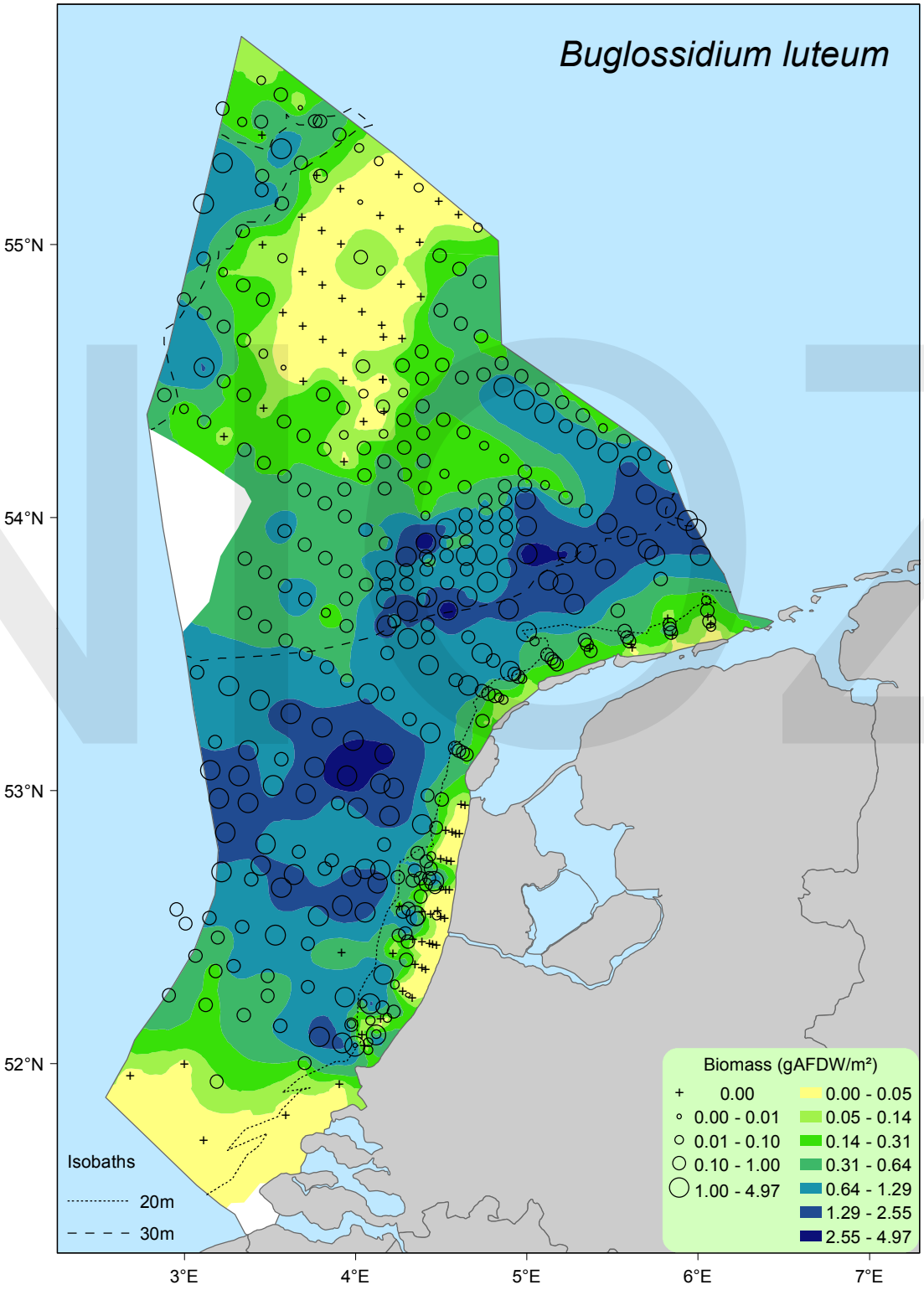

Pleuronectes platessa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.6
0.00 - 0.04
0.04 - 0.05
0.05 - 0.05
0.05 - 0.06
0.06 - 0.10
0.10 - 0.21
0.21 - 0.55

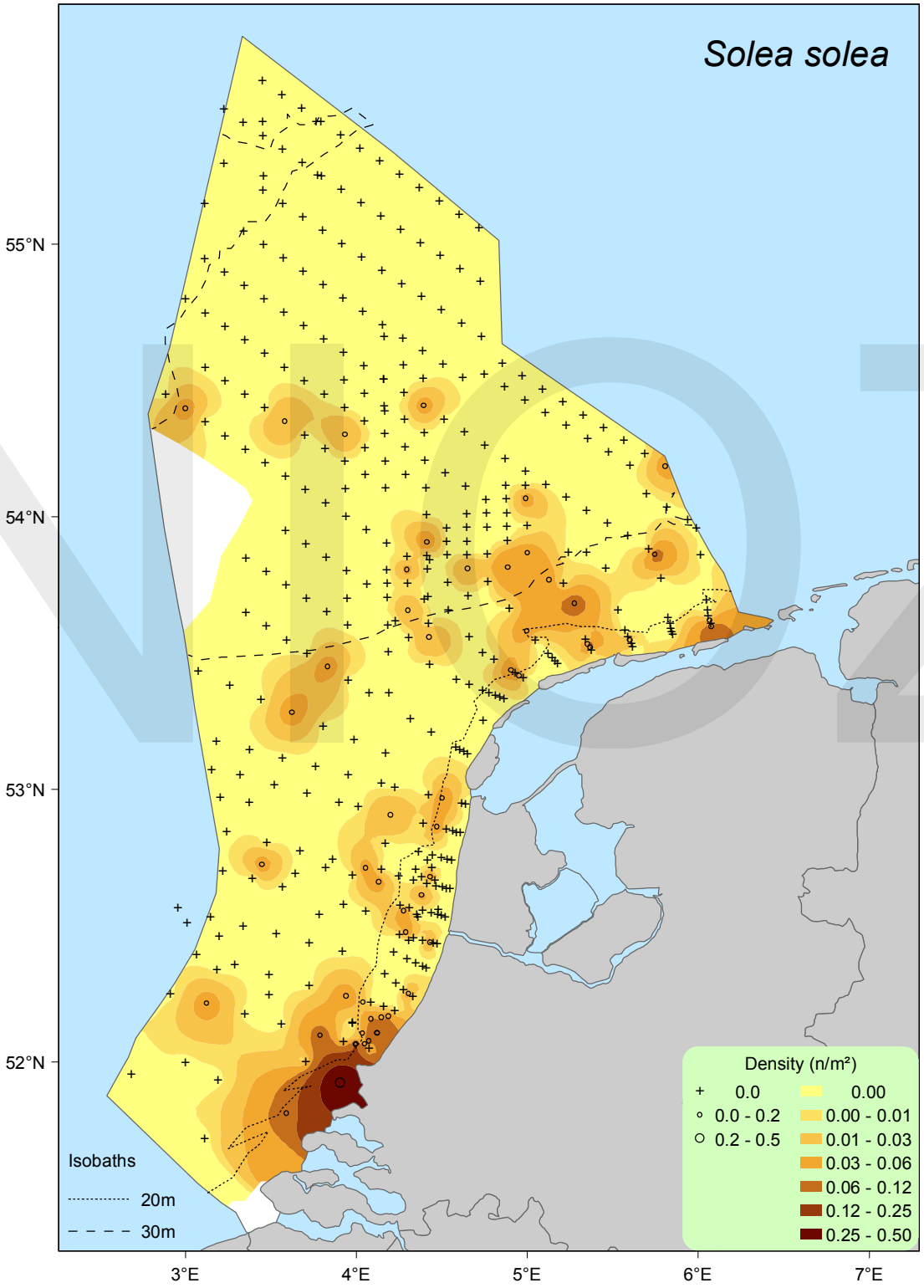

Pleuronectes platessa
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 10.00
10.00 - 12.48
0.00 - 0.01
0.01 - 0.04
0.04 - 0.13
0.13 - 0.41
0.41 - 1.27
1.27 - 3.99
3.99 - 12.48

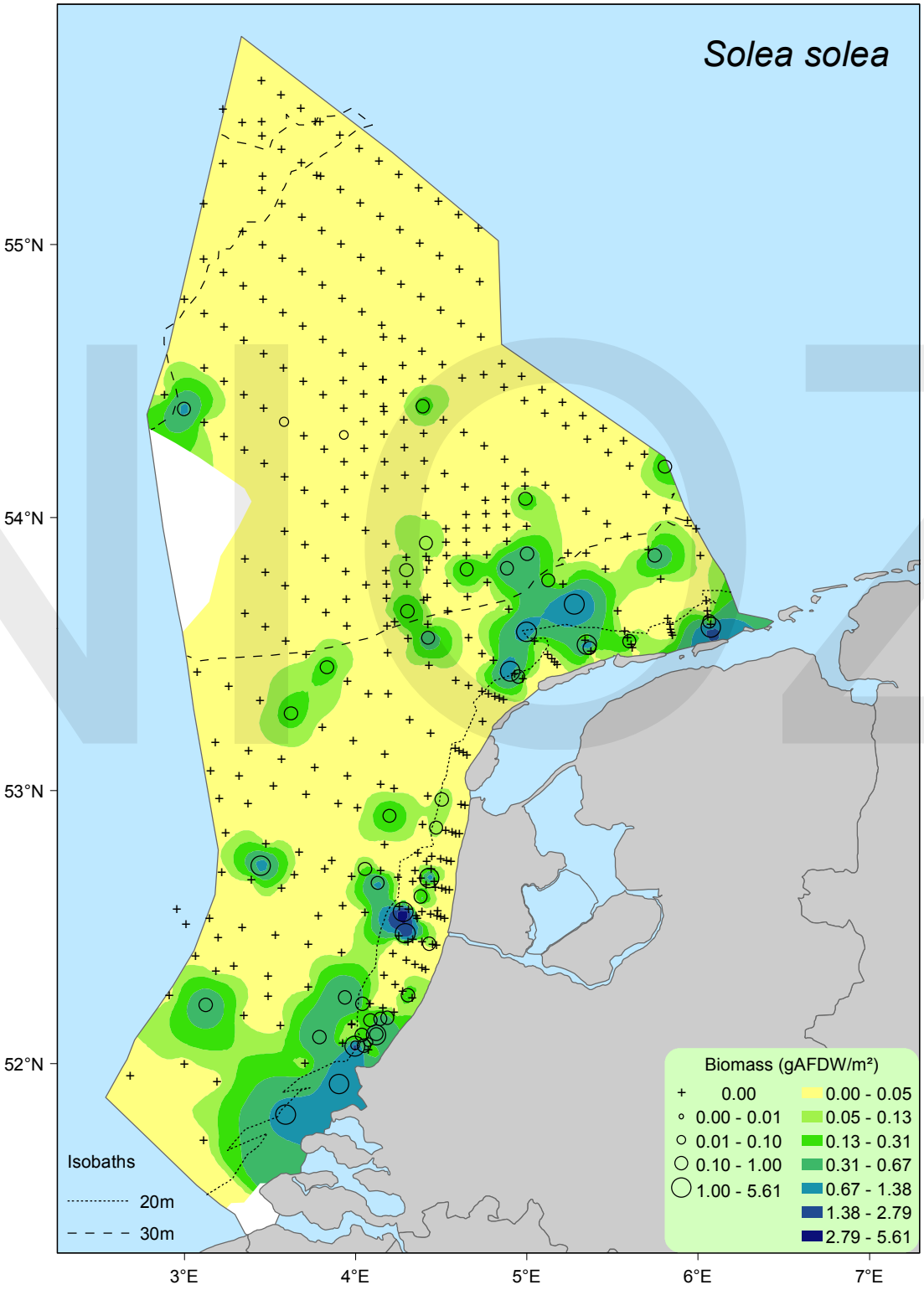

Flatfishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
Platichthys flesus
0.0 - 0.2
Lepidorhombus whiffiagonis
0.0 - 0.1
Microstomus kitt
0.0 - 0.1
Hippoglossoides platessoides
0.0 - 0.1
All absent


Flatfishes
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
Microstomus kitt
0.01 - 0.10
0.11 - 1.00
1.01 - 10.00
Lepidorhombus whiffiagonis
0.10 - 1.00
Platichthys flesus
0.10 - 1.00
1.01 - 10.00
Hippoglossoides platessoides
0.10 - 1.00
All absent


Buglossidium luteum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 1.0
1.0 - 5.0
5.0 - 6.0
0.00 - 0.04
0.04 - 0.13
0.13 - 0.30
0.30 - 0.66
0.66 - 1.39
1.39 - 2.90
2.90 - 6.00


Buglossidium luteum
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 4.97
0.00 - 0.05
0.05 - 0.14
0.14 - 0.31
0.31 - 0.64
0.64 - 1.29
1.29 - 2.55
2.55 - 4.97
Isobaths
20m
30m


Solea solea
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Density (n/m²)
0.0
0.0 - 0.2
0.2 - 0.5
0.00
0.00 - 0.01
0.01 - 0.03
0.03 - 0.06
0.06 - 0.12
0.12 - 0.25
0.25 - 0.50


Solea solea
55°N
54°N
53°N
52°N
3°E
4°E
5°E
6°E
7°E
Isobaths
20m
30m
Biomass (gAFDW/m²)
0.00
0.00 - 0.01
0.01 - 0.10
0.10 - 1.00
1.00 - 5.61
0.00 - 0.05
0.05 - 0.13
0.13 - 0.31
0.31 - 0.67
0.67 - 1.38
1.38 - 2.79
2.79 - 5.61