

HOLD
DANMARK
RENT



EVALUATION REPORT // 2022

Sea Bins

Collection of voluntarily
handpicked marine litter
on the Danish coastline





VOLUNTEERISM

that makes a big difference

The Sea Bins have now been on the Danish coastline since 2017 and the success is still increasing. Primarily, of course, because they motivate the voluntary effort to an extent that is not seen elsewhere on the litter scene, but also because the concept constantly gets new supporters and contributors in one way or another.

On behalf of all the parties behind the concept, we can, in HDR, only express our great joy, pride and humility at the huge difference the concept really helps to make when it comes to marine litter in the nature.

In 2022, the municipalities have estimated that they have removed more than 440 tons of marine litter from their coastal areas. This is significantly more than last year, when the figure was calculated at just under 238 tonnes. The distribution between municipalities is very unequal, as some have experienced a very large increase in volumes, while others have experienced a decrease. But common to all is that the weather is a decisive factor.

Wind from the west always brings garbage onto the coasts!

It is quite impressive how this environmental co-creation still inspires both local citizens and especially visiting tourists. Without any coordination or instruction, the volunteers take a bag with them on a trip, and the Sea Bins are ready all year round to receive their collected litter. A lot of people have done this in 2022, - as much as 63% of the collected marine litter has been placed in the Sea Bins. This is an increase of 12% compared to 2021, which testifies to the fact that the Sea Bins has gradually become a well-established system that many know and like to use.

The Sea Bins also make a very positive impression in the tourism industry, where sustainability is an indisputable prerequisite for future tourism and thus life in the local communities. So writes Peter Krusborg, CEO Destination Nord Vestkysten, in an article that we are proud to publish in this report.

The next step for the Sea Bins is to look at the possible recycling value of the many tons of marine litter. Therefore, Ringkøbing Skjern Municipality, in collaboration with the HDR Coastal Community, has carried out an analysis that sheds light on this waste value. Unfortunately, we have to conclude that, in this context, the price is high to act sustainably, but the future will certainly work for a better economy, also in this context. See the analysis results further into this report.

In conclusion, thank you to everyone for a quite impressive season - most of all a big THANK YOU to all the amazing people who help make the big difference on our coastlines, - both in work clothes and in leisure outfits.

KIND REGARDS

**HOLD
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WHERE TO FIND THE Sea Bins?

The Sea Bins are located on the coastline where there are the biggest challenges with marine litter washed up by the waves. Thus, the Sea Bins are not intended for ordinary waste, such as dog poo bags, ice cream paper or household waste from mobile homes. This waste should be put in the ordinary garbage cans located all around the sea side.

Below you find a map of where the Sea Bins are found on the coastline. Also follow the link to an online map.



*Click here to see the
precise location of
the Sea Bins*



FACTS

A wooden box – that simply





VIDEN OM AFFALD

i havet

There is great voluntary potential in Denmark when it comes to the green agenda. Many citizens want to help make a difference, and the more concrete and present the deed is, the better. But when it comes to co-creation between systems and people, the art is to make the elements and process as simple and intuitive as possible. Because if it all becomes too complicated and difficult, many people shy away and lose interest in participating.

The Sea Bins on the coastline are generally not promoted. Over the years, neither the municipalities nor Hold Danmark Rent have purposefully sought to spread awareness of the concept. And yet, the Sea Bins are filled daily with tons of marine litter! The reason lies in the fact that the Sea Bins are the answer to an immediate need that arises spontaneously in the individual beach guest, who intuitively follows an impulse to pick up marine litter and subsequently must dispose of it. Thus, it is not so crucial whether the Sea Bin is green or blue or whether it tells the right story, - what is important is that it is present and visible. Therefore, a simple wooden box can mobilize thousands of Danes - and not least tourists - to take personal part in a joint effort for a cleaner and more litter-free nature.

Dimensions and materials

The Sea Bins are made of wood, which is impregnated and has a good durability and resistance to wind and weather.

The dimensions of the box are H 90 x L 120 x W 100 cm., and then it has a double bottom of 2 freight pallets, which makes it easier to lift free of the sand with a pallet truck if not emptied by hand.

Signage

On the side of the Sea Bins there is a sign that communicates "Marine Litter" in 3 languages. In addition, there are a few pictures of marine litter to. The sign is made of weather-resistant material that considers water, wind, sun and sand. The sign also includes the logo of the local municipality and Hold Danmark Rent, as well as a QR code that leads on to an information site that talks more about the concept.

Operation and maintenance

The Sea Bins are owned and operated by the individual municipality, which is thus responsible for ensuring that the Sea Bins are always in a good condition and that they are emptied on a regular basis. Many of the Sea Bins are placed on the coastline throughout the year.

However, a few are moved to the other side of the dunes, where they are sheltered from the winter storms, which would otherwise take them to sea. The Sea Bins are emptied on a weekly basis, and in high season it is not uncommon for an emptying to take place several times a week. Some Sea Bins are emptied by hand, while others are emptied by tractor and pallet truck onto the back of a cart.

Exemption from the Danish Coastal Authority

The coastal areas in Denmark are protected under the Nature Protection Act's provisions on beach protection and dune conservation. The aim of protection is to preserve the open coasts and the landscape, natural and recreational values associated with those coasts.

With this legislation in mind, it is necessary to obtain a permit for the installation of the Sea Bins, as most of them are located within the conservation line. On behalf of the municipalities, Hold Danmark Rent coordinates the application work and is responsible for the contact with the Danish Coastal Authority. In 2022, a new exemption has been granted, so that all 182 boxes are legally correctly placed on the coasts.



In the name of sustainability



Article by Peter Krusborg,
CEO Destination Nord Vestkysten

Probably the most used and popular concept of our time must be sustainability. Like previously popular concepts, such as big data and digital transformation, it is incredibly difficult to get concrete on how we approach the task and even harder to assess when we have reached the goal. But maybe it's not the goal but rather the journey that is important. Fortunately, this is exactly the approach we see an increasing number of our guests along the Northwest Coast taking to sustainability in a holiday context. They do not judge us on a sustainability scale or care too much about the many sustainability certifications that fight for space on the counter at various receptions. Instead, they are full of expectations that we, as a unified destination across municipalities, businesses, and citizens, actively work to constantly become more sustainable.

First off all, it's about getting to grips with something as unsexy as the hygiene factors; Waste sorting, plenty of charging stations for the growing number of electric cars and proper guidance for new guests in nature. Just to name some of the most important factors. Next, we must demonstrate in action that we

are working with the dissemination of new sustainable solutions. This could be in the form of clean green energy in the power socket, better insulation of our accommodation products or replacement of water nozzles in bathrooms and kitchens to save water.

But if we really want to be able to do good and make our guests feel we have not only have started the journey towards a more sustainable holiday destination, but that we are at the front of the field, then it is not enough to show that we take sustainability seriously. We must also manage to involve our guests in the destination community, which is essential for us to succeed in creating sustainable frameworks in practice.

The tourist must become part of the solution rather than the opposite. The Sea Bins, plastic collection, learning about recyclable materials and planting lyme straw in the dunes are just some of the good examples of activities where guests today are invited to take an active part in the work with sustainability at a local level. Activities that both strengthen the guest experience as well as the specific nature conservation to such an extent that we hopefully in

the future will be able to talk about sustainable tourism becoming regenerative.



First off all, it's about getting to grips with something as unsexy as the hygiene factors

At Destination Nordvestkysten, we are already well underway with all three focus areas, helped by the set of values the area has had for decades if not centuries. A set of values based on a proud history of meeting the challenges together. This is not to say that we are in any way on target with the sustainable agenda, but we are well on our way. At the

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*Probably the most used
and popular concept of our time
must be sustainability*



same time, we are in a part of the country where good business skills is high on the list, which is why it is perhaps no wonder that I am often asked the question of how we should market and price all the work we do in the name of sustainability. My answer to this is simply that we should not. Focus on sustainability is in my opinion not a main reason for choosing our destination and our guests do not expect to pay more for a holiday with us because the car charges on green energy or the waste can be sorted into ten different fractions. They take it for granted that this is the case when

visiting a destination that has positioned itself so much on fantastic nature experiences. If we disappoint them, it means that they will not come again. An extremely important point when about 90% of our guests are returning year after year and an increasing number of them fall into the category of green idealists.

In other words, sustainability is not a buzzword we can use in profiling our area or to increase the bottom line today, but it is an indisputable prerequisite for the future of tourism and thus life in the local communities out west.



*Article by Peter Krusborg,
CEO Destination Nord Vestkysten*



2022

Marine litter collected in the Sea Bins in 2022

By the end of 2022, the Sea Bins are available in 9 municipalities in Denmark with a total of 182 Sea Bins in operation. Most of them remain on the shores throughout the year. The municipalities have estimated that a total of just over 440 tons of marine litter have been removed from their coastline, of which just over 220 tons have been placed in a Sea Bin.

Municipality	Number of Sea Bins	Marine litter in total (tons)	Litter in Sea Bins (tons)	Litter in Sea Bins (%)
Varde*	5	100	5	5%
Ringkøbing Skjern	56	135	109,2	81%
Holstebro	14	7	6,6	94%
Frederikshavn	23	23,8	11	46%
Hjørring	18	29	6	21%
Slagelse	11	Not calculated	1,8	-
Lemvig	28	48,6	48,6	100%
Thisted	21	34,8	17,5	50%
Jammerbugt	6	62	15	24%
Ialt	182	440,2 tons	220,7 tons	

* Varde Municipality uses their Sea Bins in other ways than the others. Therefore, their figures have not been taken into account in the calculation of total quantities removed from the coasts.

The Sea Bins has removed **63%** of the marine litter on the coastline in 2022.

This is an increase of **12 %** point compared to 2021!



Klick here to find the local Sea Bins



Most of the litter that the Sea Bins collect is marine litter - i.e., litter that has been washed in with the sea. This type of litter is characterized by being relatively dirty and destroyed, and thus a challenge to sort into material types.

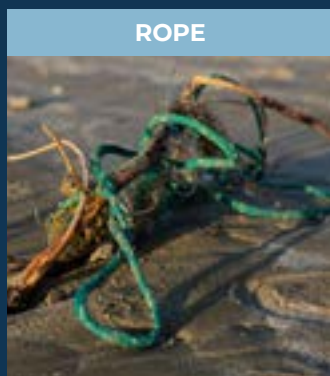
In the autumn of 2022, 6 random chosen Sea Bins was pick out and the content was analyzed. Here you can see the distribution of the litter – measured in pieces and kilos, respectively.



PLASTIC

By number **53%** and by weight **23%** of the total content of a Sea Bin.

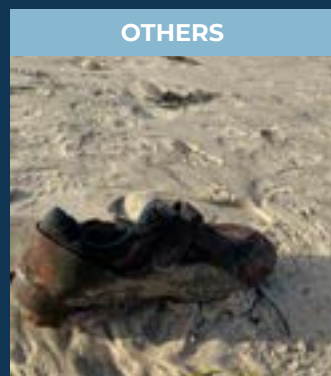
Food packaging, plastic bags, butts, capsules, lids and a large amount of unidentifiable plastic.



ROPE

By number **21%** and by weight **16%** of the total content of a Sea Bin.

Small pieces of rope in bright colors are found in their thousands along the coasts.



OTHERS

By number **15%** and by weight **31%** of the total content of a Sea Bin.

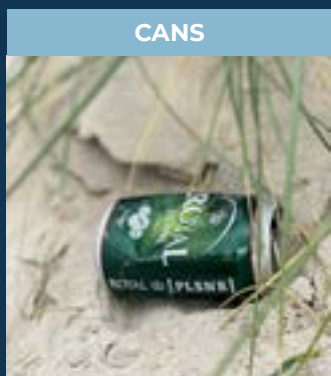
Household waste, construction waste, textiles, rubber div., paraffin, styrofoam and hygiene items.



PLASTIC BOTTLES

By number **4%** and by weight **3%** of the total content of a Sea Bin.

Soda and spring water bottles are typically from afar.



CANS

By number **2%** and by weight **2%** of the total content of a Sea Bin.

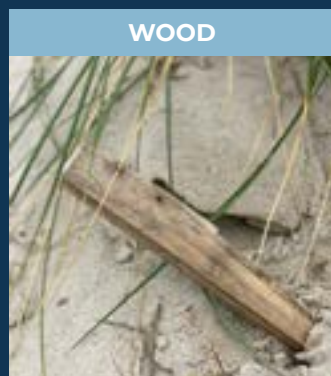
Beer and soda cans – both Danish and foreign.



FISHING NETS

By number **1%** and by weight **2%** of the total content of a Sea Bin.

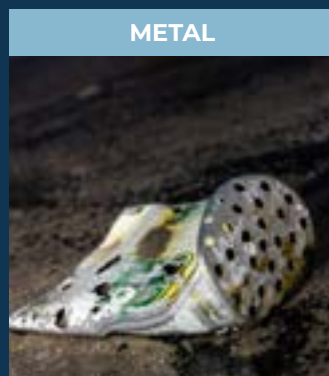
Entangled net, canisters, buckets, etc.



WOOD

By number **1%** and by weight **17%** of the total content of a Sea Bin.

Remains of pallets and other residual wood.



METAL

By number **1%** and by weight **1%** of the total content of a Sea Bin.

Spray cans, metal capsules, etc.



PAPER/CARDBOARD

By number **1%** and by weight **1%** of the total content of a Sea Bin.

Ice cream containers, napkins, magazines – all Danish.



GLAS

By number **1%** and by weight **4%** of the total content of a Sea Bin.

Alcohol bottles, fluorescent lamps, jam jars – typically foreign.

Notes:
Not surprisingly, the material plastic is the most dominant type of litter in the Sea Bins. This is also the case in the Nordic region, where plastic also takes up the most space in the statistics

It is also interesting to note how few cigarette butts there are to be found in the Sea Bins. There can be several reasons for this; Either they are buried in the sand and are thus not visible or it is a type of litter that beachgoers do not want to touch without gloves.

One of the most surprising observations in the analysis was the number of beverage packaging. Cans and bottles together make up 6% of the items counted, which is significantly more than at other types of locations in Denmark. Many of the counted packaging was of foreign origin, which only testifies to the absence of deposit systems in these countries. Unfortunately, these packaging is now so damaged that it cannot be recycled in our own deposit system in this country.



SEA BINS

Recycling marine litter

Ever since its beginning in 2016, the ultimate purpose of the Sea Bins has been to create a simple collection system that makes it easy for citizens and tourists to get rid of the marine litter they find on the beach. Thus, it has been most important to get the litter away from the coastline without necessarily having thought about what materials the litter is made of.

But the present requires an increasing focus on sustainability, and this also applies to the relatively large amount of marine waste that

municipalities collect annually on the coastline. This year, a total of almost 500 tons have been collected across the 9 municipalities that operates the Sea Bins, all of which have been passed on to the waste companies with which the municipalities have an agreement. Historically, marine litter has either been incinerated or taken to landfill. No one has previously investigated the recycling value of marine litter, solely on the grounds that the sorting process is very resource intensive.

But now the Municipality of Ringkøbing Skjern and the HDR Coastal Community have created new knowledge in this area.

In November 2022, an agreement was made with the waste company Ragn-Sells on sorting of marine litter, which was transported from Hvide Sande in West Jutland to Nr. Sundby in North Jutland. Here, the large 40-foot container was emptied, and the litter sorted into the different fractions that Ragn-Sells can handle. All fractions, except landfill-suitable waste, go to recycling or other energy recovery.

Here is the distribution of the litter, which had a total weight of 5.84 tons:

Fractions:	Wood	Metal	Household glass	Mix plastic	Residual	Landfill
Vægt i kg	1650	30	20	380	1800	1860
Procent	28,75%	0,52%	0,35%	6,62%	31,36%	32,40%



FRACTIONS FOR RECYCLING:**METAL**

The metals are picked up by Aalborg Recycling, which sorts the metals and sends them for direct recycling.

HOUSEHOLD GLASS

Household glass is sent to Reiling, where the glass is broken and recycled into new glass.

MIXED PLASTIC

Ragn-Sells is currently shipping mixed plastic to the Netherlands or Sweden for further reprocessing. But they have a new plant in the pipeline that will treat plastic in the same way as is now being done in Sweden and the Netherlands. In the final stage of this reprocessing, we end up with a granule that can be used in new production of plastic. Plastic containers containing liquid or similar must be emptied and possibly washed.

WOOD

The waste wood is sent to Kronospan. At Kronospan, they tile the wood and make it into chipboard. Wood and plastic that are rotten or filled with mussels will unfortunately not be recyclable. This will be sent for other energy recovery.

Note! A significant part of the wood on the coasts is collected by the local beach goers, who also have other important tasks in this locality.

FRACTIONS FOR ENERGY RECOVERY:**RESIDUAL WASTE**

This fraction consists of ropes, rubber, and materials with a predominance of a lot of sand. The waste is sent to Nordværk for energy recovery.

FRACTION FOR LANDFILL:**LANDFILL**

Here is the final by-product of the sorting. The fraction contains sand and a residual product that cannot be recycled or sent for energy recovery.

Landfill is sent to Nordværk, which has better facilities to process such a final product.

Conclusion

Of the sorted marine litter from the Municipality of Ringkøbing Skjern, we can conclude that 36.24% of the total amount can be recycled. 31.36% is sent for energy recovery, and the remaining 32.40% is taken to landfill. From a recycling perspective, this is quite good, but if we look at it operationally, the economy is unfortunately challenged, as it currently costs money to recycle this type of waste.

If we calculate the economy of the fractions for recycling, Ragn-Sells states that it currently costs DKK 358,- per ton to recycle waste wood, DKK 200,- per ton to recycle glass and DKK 1130 p. tons to recycle mixed plastic of grade B. The only fraction that currently has a positive economy is metal, which gives DKK 600 per ton.

If the marine litter cannot be recycled, then it may be used for energy recovery. It currently costs DKK 727 per ton. And if it is ultimately allowed to be driven to landfill, then the price is DKK 1112 per ton. On top of these prices, of course, there are costs for emptying the Sea Bins on the coast, transporting the litter to a sorting point and the sorting itself.

CAMPAIGN

Alone we can do something – together we can do everything!

There are no beach guests who are in doubt about what a Sea Bin should be used for. It is entirely self-explanatory with a single headline in 3 languages and illustrative images. So ever since the start in 2017, the Sea Bins have stood strong on their own without any associated communication efforts. But this year, the HDR Coastal Community chose to join forces on a joint campaign, which basically has the sole purpose, namely, to pay tribute to the fantastic efforts of the many volunteers and thus tell the good story of how you alone can do something, but when we do it together, we can do everything!

The campaign has consisted of films, SOME posts and the production of small mini-Sea Bins with info leaflets for use in shops on disks.

The materials have been extensively used by the active municipalities, but also by the local tourism destinations.

The campaign will continue in 2023 with exciting new initiatives.



FROM US WITH LOVE

A big thank you to our partners

The Sea Bin concept is a model when it comes to partnership projects in the waste area. It is by far the most successful concept Hold Danmark Rent has ever been a part of and it almost does not matter in which way success is measured. There are top scores on all parameters, both in terms of quantities of litter collected, the number of active volunteers involved and the quality of the supporting partnership between municipality, sponsor and organization.

The municipalities provide the daily operations - THANK YOU

The Sea Bins are owned, maintained and operated by the local municipalities, which thus helps to handle a heavy task in the concept. However, the Sea Bins supports municipalities' cleaning obligation on the coastline, which can thus be organized in a new way.



Nordic Council of Ministers supports Hold Danmark Rents work on the coasts - THANK YOU

Since 2017, Hold Danmark Rent has represented Denmark in the joint Nordic project Nordic Coastal Cleanup (NCC), which through a mobilization of volunteers aims to create a greater awareness of waste in our Nordic seas.

Over the years, NCC has received financial support from several parties, including the Nordic Council of Ministers. In particular, the support shall contribute to the maintenance of the network. But it must also be further developed so that there are even more local activities that mobilize voluntary cleanup on the beaches, and finally we must create greater knowledge about the sources and causes of marine litter in the Nordic seas.

In Denmark, we contribute to the Nordic community with the Sea Bin concept. No other country in the Nordic region has this concept, and we are pleased to be able to inspire with the fine results that the concept creates year after year.

“The Sea Bin project is an innovative concept and an example to follow. Hold Danmark Rent has succeeded in developing an initiative that engages volunteers, creates attitudes and is a source when it comes to knowledge about marine litter.”

Lise Keilty Gulbrandsen, Director Hold Norge Rent & CEO, Clean Europe Network

Westwind donates its bag sale to the Sea Bins - THANK YOU

Over the past 3 seasons, the Westwind chain has supported the Sea Bins with the revenue from their bag sales in the almost 30 stores.

Their financial support is valuable and has contributed, among other things, to the preparation of the content of the joint communication effort carried out this year.

Likewise, Westwind also supports the concept with their own beach cleanings, which are carried out in September and staffed by both staff and customers.



HOLD DANMARK RENT

Hold Danmark Rent (HDR) is a non-profit organization that works to reduce the amount of dumped litter anywhere in Denmark

Hold Danmark rent is a practically oriented knowledge center, and a network organization that works innovatively and developing together with municipalities, volunteers and companies for a cleaner Denmark without litter in Mother Nature.

With special focus on opportunities for interdisciplinary collaboration and citizens, involvement always strives for the best solution for everyone through a good and constructive personal relationship.

HDR does not believe in pointing fingers. Only with a positive approach can we make the problem of litter dumped in Mother Nature a shared responsibility and with a joint effort achieve better results

**Learn more about HDR on our website
www.holddanmarkrent.dk**

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