

Do seahorses favour the fixed moorings?

Now the dire (and hugely exaggerated) conservationists' warnings about anchors wiping out the eelgrass and seahorses have been debunked by Seastar's careful work, what about Studland's fixed moorings?

Yes, the chains do sweep areas of seabed bare, but this is a fixed total area and a very small fraction of the total eelgrass beds. But does this harm the seahorses?

The conservationist's knee-jerk reply would be "of course it will". But Neil Garrick-Maidment's report at http://www.theseahorsetrust.org/userfiles/Movement_of_a_pair_of_Seahorse_during_the_summer_of_2010.pdf describes these seahorses living in an area right next to a mooring scar. Other seahorses used the same site in earlier years. So they presumably like it, it suits them, or they wouldn't live there. Fig. 5 of the report shows positions of actual sightings, and most are very near to or even within the scar – it **acts like a magnet**. It really is worth taking a look at Fig. 5, reproduced here:

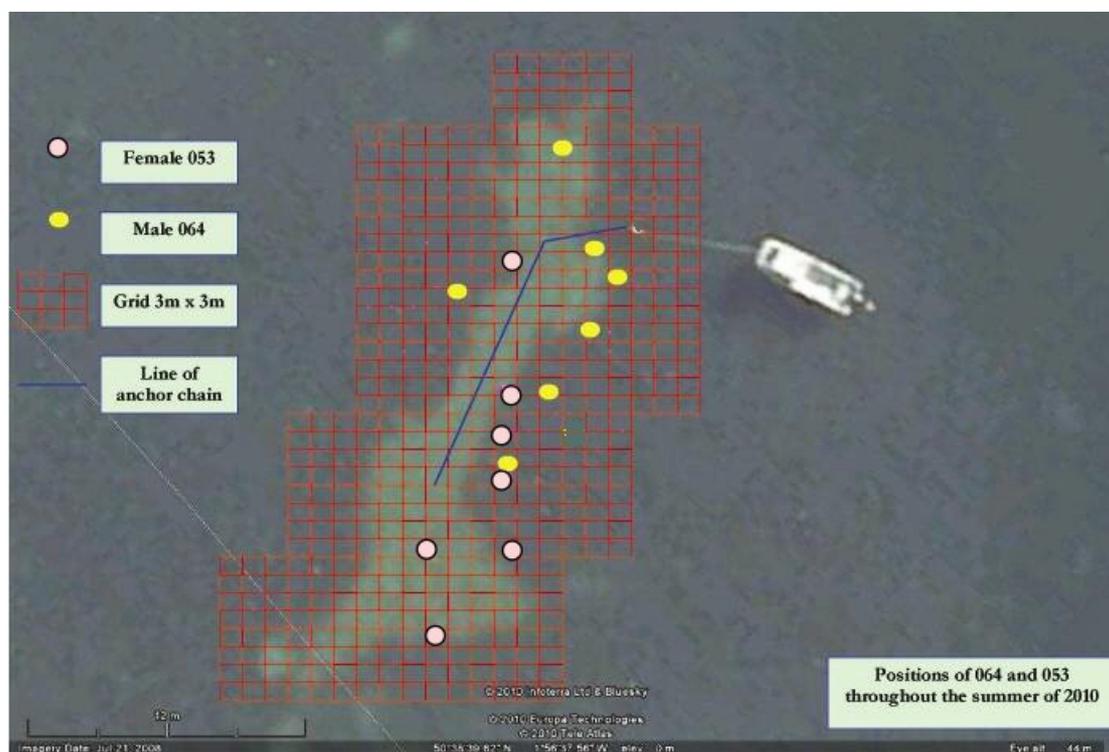


Fig 5

Movement of the pair of Seahorses 064 and 053 during the summer of 2010, the dots represent sightings but do not show all the positions they were seen throughout the summer as many of the sightings were too close to others to be distinguishable on this scale of map. (Note: the yellow dot furthest from the scar edge has been reduced in size, and the dull pink dots in the original replaced with brighter ones in the same locations, to maximise visual impact).

Note the little red squares are 1 metre, and 11 out of 15 dots (73%) are within 1 m of the scar, and 14 out of 15, 93%, within 1.5 m.

The author suggests that the open areas over the scar might be used for courtship displays.

But could it also be that the chain moving over the seabed stirs up food particles, or tiny creatures to feed the seahorses?

Not as far-fetched as some might think – the seahorses do whatever seahorses do in the nearby eelgrass, and when they sense the vibrations from a moving chain, that acts as a food signal and they shimmy out to see what's been turned up. After all, bass are said to cruise the surf on an incoming tide in search of food churned up from the seabed, flounder spoons might work by disturbing the bottom, and stirring up a river bed with a stick is an early form of ground-baiting.

Strong support is given to these ideas in the OSPAR background document for spiny seahorses (www.ospar.org/html_documents/ospar/html/p00429_after%20bdc_fr%20h_guttulatus.pdf) which states:

“.....They occupy only certain parts of seemingly suitable habitats, for example staying close to the edge of seagrass beds leaving large areas unoccupied. These microhabitats have not been investigated but it has been suggested that there is a trade-off between the shelter provided by dense seagrass and the food availability in areas of good water exchange at the periphery of seagrass patches . Habitat / substratum preferences may be seasonal and related to seasonal migration (N. Garrick-Maidment, pers. comm.).”

So the conservationists should look very closely at the evidence (eg were more seahorses found in the vicinity of moorings than by random chance, as they certainly were in Fig. 5?)* - or they might find that the “conservation” action to remove the eelgrass scars has driven the seahorses away!

Some conservationists believe that all activities of man are evil, and nature must rule, but more intelligent ones will note the successes of bird conservation where nest boxes, artificial nesting sites and even providing food have worked really well in restoring declining species. In the marine environment, manmade structures such as piers and shipwrecks provide rich pools of biodiversity and shelter, to the extent that unwanted vessels are sometimes intentionally sunk to provide artificial reefs. Human influence can sometimes be for the good.

It would be most interesting if it turned out that a degree of human disturbance of the seabed is what makes Studland Bay attractive to seahorses!

* a local resident's observations confirm a preference for the mooring areas:

I have watched the Divers over the last few years as they search for Seahorses in Studland Bay. The divers concentrate around those moorings which are located in the Eelgrass beds. Presumably because that is where they expect to find Seahorses. I have fished the Bay for many years and have observed prawns basking in the sandy pools found in the eelgrass beds. As soon as disturbed they shoot back into the

eelgrass cover. The sandy/muddy pools have warmer water- sun reflection off the sea floor. The chain scars of the moorings give the same effect- warmer water pools. The Seahorses obviously enjoy these pools and the photos and Seahorse article quoted seem to prove it.

So the moorings are a favoured habitat of the seahorse.

If the seahorse naturalists dispute these conclusions they should publish a map of all the seahorse sightings in the Bay. And the actual numbers of individual seahorses of each species (spiny and short-snouted) seen in each year.