

Kingsdown chalk



Jason Armstrong

Kent
seasearch



Antenna hydroids and painted topshell



Dave Wood

Leaches spider crab



Paul Hymers

Kent Seasearch 2009 Summary

Piddock siphons and dahlia anemone



Mike Cook

Tompot blenny



Dave Wood

Sponges and bryozoans on chalk reef



Paul Hymers

Velvet swimming crabs



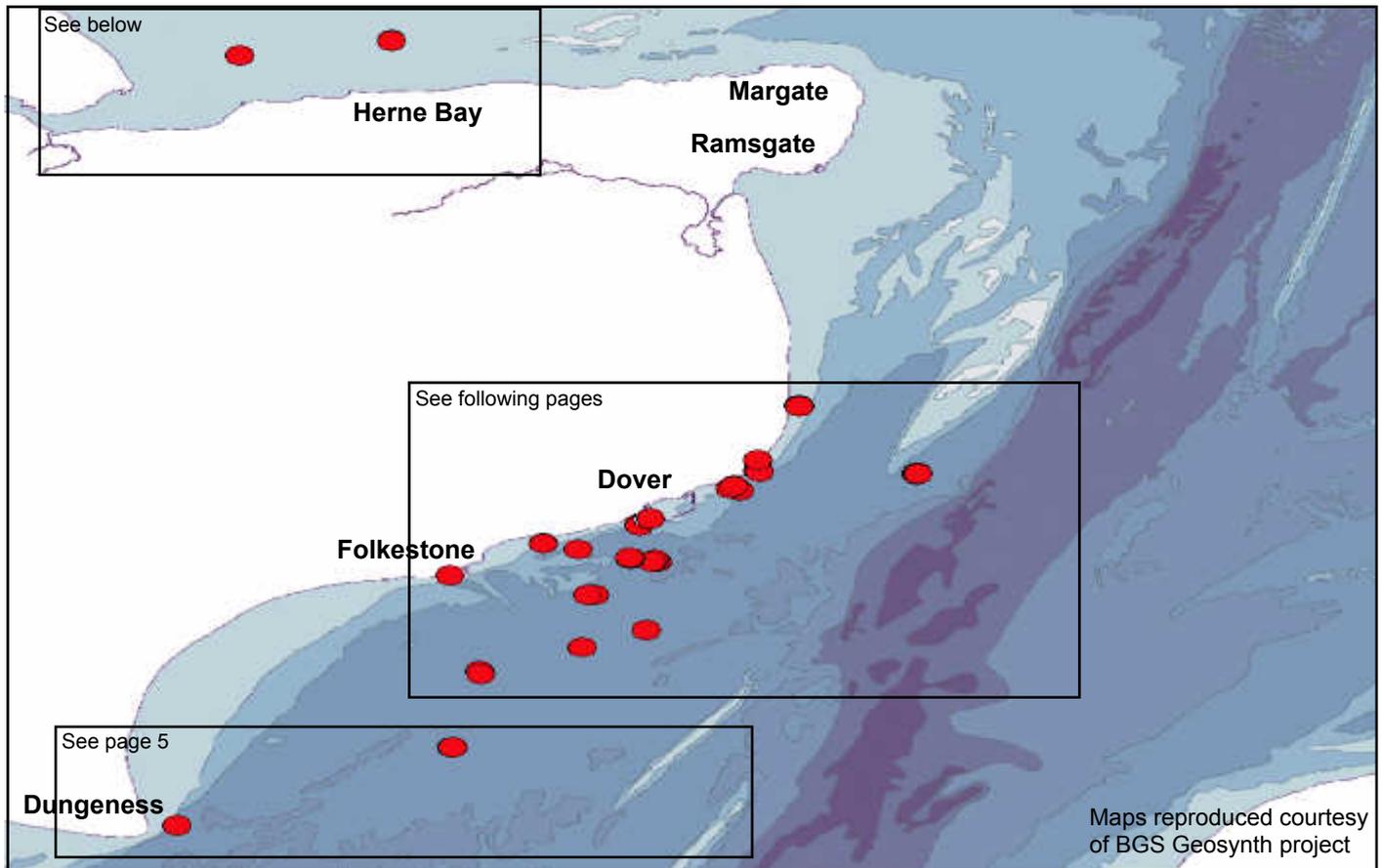
Jason Armstrong

Kent Seasearch surveys in 2009 Kent Seasearch divers surveyed the seabed at 22 locations, at depths from 1m to 35m. A record 102 forms were completed, leading to nearly 2,000 species records, including around 260 different species. The most frequently recorded species was again the common starfish (*Asterias rubens*), followed by finger bryozoans (*Alcyonidium diaphanum*), dahlia anemone (*Urticina felina*) and hornwrack (*Flustra foliacea*). Many of the surveys recorded life on the special Kent habitats of subtidal chalk and rosworm (*Sabellaria spinulosa*) formations, which are recognised as important in the national and county Biodiversity Action Plans.



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Kent Seasearch 2009 Surveys



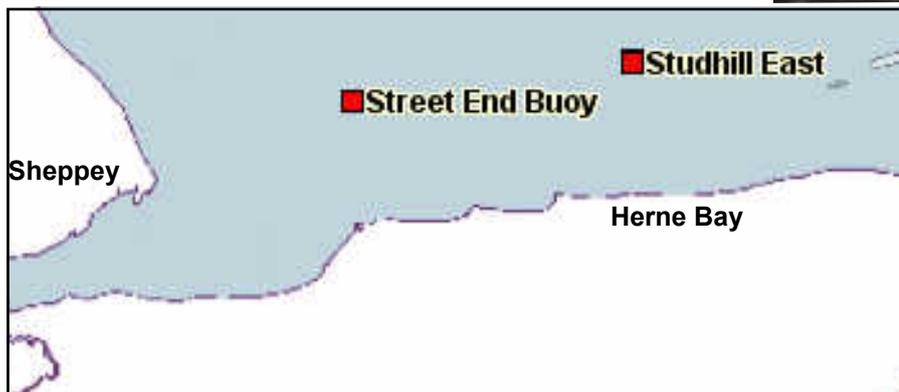
Street end buoy 51.39225N, 1.02144E

Beyond the end of The Street (a long, consolidated shingle spit off Whitstable) is a marker buoy and the raised spit is apparent on an echosounder. The feature however was not apparent on dives either side of the buoy, which were on a matrix of soft clay, pebble and gravel where the life was limited to a few attached species and several hermit crabs, whelks, starfish and gobies.

Purse sponge



Jason Armstrong



Lesser spotted dogfish



Paul Hymers

Macropodia spider crab



Steff Buell

Studhill East 51.40292N, 1.12455E

An almost level, flat seabed consisting mainly of mud and sand with patches of broken shells and very occasional cobbles supporting some animal turf (mainly seasquirts, hydroids, hornwrack, finger bryozoans and dahlia anemones). Occasional undulations in the mud, and some cobbles and pebbles also hidden under the mud. Mobile life mainly sand brittlestars and the delicate long-legged spider crabs, *Macropodia*.

Sand brittlestar

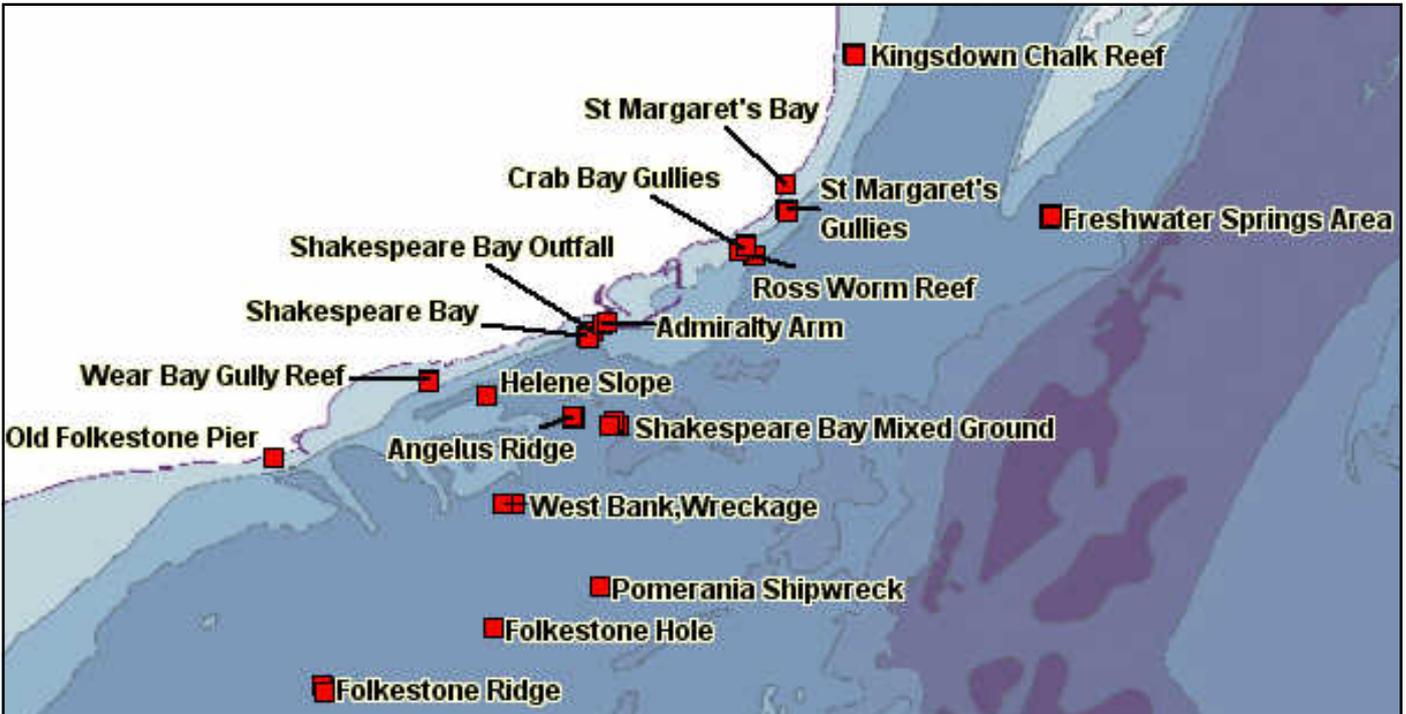


Dave Wood

St Margaret's Bay 51.1503N, 1.38587E
Chalk reef with small gullies, and scattered boulders and cobbles among sand, gravel and mud in between. A mixed turf of algae, including some kelp growing on the chalk reef and boulders.



Kingsdown Chalk Reef 51.18448N, 1.41132E
Fairly flat piddock-bored chalk reef plateau at around 8m with exposed pockets of chalk interspersed with areas of sand and gravel with cobbles, pebbles and some small boulders. Bedrock and boulders covered in sponges, sea squirts and anemones, with some rossworm, finger bryozoan and hornwrack, and sparse red algae. Mobile species include gobies and various other fish, juvenile cuttlefish and cuttlefish eggs, and several crab species, each in some numbers. An area of soft muddy sand tubes requires further investigation.



St Margaret's Gullies 51.14374N, 1.38637E
Chalk reef, initially boulder strewn with sand and gravel in between, then chalk bedrock outcropping into 4-5m long platforms incised with gullies running N-S and up to 1-2m deep. Mixed red seaweeds on tops of the outcrops, and sponges, worm tubes and hydroid turf on the sides, along with much dead man's fingers. Many velvet swimming and edible crabs in crevices in the chalk, and the area generally populated with many crabs, fish and lobster. Sandy seabed in the base of the gullies with scattered flint pieces, some in small piles and providing attachment for finger bryozoans and pink encrusting algae.

Freshwater Springs Area 51.14421N, 1.49412E
A sand and fine gravel seabed with ripples and gently undulating ridges (running NW-SE) and small craters collecting shell litter and occasional chalk pebbles and lumps of coal, presumably remnants from a nearby wreck. In places, the sand forms 'steps' of a few meters wide followed by a drop of 10cm to next step, elsewhere dunes stand around 4m high. Too mobile for attached life, the area is populated by many small hermit crabs (mostly in dog whelk shells), common starfish, and whelks, along with dogfish and thornback ray.

Crab Bay Gullies 51.13372N, 1.36878E
A chalk reef incised with gullies up to 1-2m deep, running NW-SE, and some flat chalk areas with scattered boulders among pebbles and sand. The chalk above the gully floors has a rich cover of sponges, dead man's fingers, hydroids, bryozoans and anemones.

Piddocks are plentiful within the chalk, rossworm is present, and some red seaweed are growing on the shallower plateau. The area is teeming with mobile life including dogfish, wrasse, dragonet and starfish.



Rossworm Reef 51.13168N, 1.37327E
Mixed rossworm and mussel bed reef on a sandy bed (70% rossworm and 30% mussels), with abundant anemones and crustaceans, queen scallops, starfish and whelks.

Shakespeare Bay 51.109N, 1.305E

Gently sloping, firm, mixed ground seabed with chalk pebbles and silty sand and broken shells, with the odd chalk and flint boulder, becoming chalk platform closer in to shore. Occasional mobile animals and very little attached life. Very poor visibility curtailed the survey.

Hermit crab



Glyn Jones

Shakespeare Bay Outfall**51.11136N, 1.30792E**

Fine, muddy sand at around 9m, irregularly rippled with a dusting of silt on the sides and bases of dips. Very occasional pebbles and shells, no obvious burrows, mounds or casts, and very sparse life, apart from gobies and hermit crabs in netted dogwhelk shells. Very poor visibility, limited survey.

Admiralty Arm 51.11325N, 1.31187E

Harbour wall with deep crevices reaching back between the large blocks, and harbouring a busy collection of crabs, prawns, squat lobsters, flatfish, gobies and sea scorpions, among several others. Attached life dominated by red seaweed, kelp plants and animal turf of hydroids, bryozoans, sponges and sea squirts. Lowest blocks scoured by the sand at the base of the wall. This year's surveys on the wall included night dives when young squid were caught in the torch light.

Red mullett



Jon Bramley

Spiny squat lobster



Jason Armstrong

Squid



Jason Armstrong

Helene Slope**51.0939N, 1.265E**

A gently sloping seabed of mixed gravel, pebbles and clay, and a few chalk or clay boulders with piddock holes. Numerous brittlestars, burrowing anemones and sea squirts.

Painted topshell



Jason Armstrong

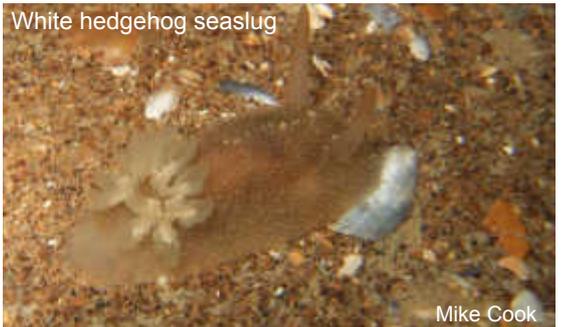
Wear Bay Gully Reef**51.09745N 1.24109E**

An area of large boulders standing on a bedrock, probably of clay, all heavily silted, with *Polydora* worm holes and many piddock siphons showing. Some boulders standing adjacent to each other, others around 2-3ft apart, with the areas between them having a layer of silt and sometimes a shelly gravel layer over the bedrock. Boulders also bored by *Polydora* worms, and covered in a dense turf of hydroids, bryozoans, sponges and lightbulb seasquirts, with frequent small hermit crabs and many species of seaslug with their egg masses. Red algae present in the lighter conditions on tops of boulders.

Angelus Ridge 51.08889N, 1.30093E Boulder-strewn area of flat mixed ground over clay at the top edge of Angelus slope at about 22m, with a dense cover of short animal turf of hydroids and bryozoans (including hornwrack and finger bryozoan) and some anemones, and rosworm tubes. Between the boulders is a mix of cobbles, pebbles, gravel and shell fragments, and some mud.

The seabed slopes gently away in a SW direction, down from 22m (to 30m and beyond) with less frequent boulders, but many cobbles, and occasional outcropping plates of clay. Some of the cobbles are bare, but the majority of boulders and larger cobbles support a dense hydroid and bryozoan turf. Mixed ground features anemones and abundant finger bryozoan with many *Acanthodoris pilosa* (white hedgehog) seaslugs and egg whorls. Hermit crabs and other crustaceans, painted topshells and common starfish also common on and around the cobbles and boulders. Scattered on the slope are some pots, an anchor and other metal wreckage.

White hedgehog seaslug



Mike Cook

Piddock siphons and dahlia anemone



Mike Cook

Shakespeare Bay Mixed Ground 51.10981N 1.30546

Around 3km out from Shakespeare beach the seabed is of mainly silty sand and gravel with some pebbles and small cobbles. Occasional very small outcroppings of the underlying chalk with piddock holes, and much of the seabed consolidated with a crust and some small erect formations of rosworm tubes (around 15cm tall and wide). Heavily silted and with a mixed turf of hydroids, and bryozoans, including antenna hydroids, hornwrack, sponges and anemones over much of the larger stones. Sand mason worms present in the sand. Limited mobile life, mostly small crustaceans, including several *Galathea intermedia* squat lobsters and nudibranchs (and many eggs masses).

Old Folkestone Pier 51.07609N, 1.17867E

Pebble beach shelving down to sand with some pier debris then apparently a natural sandstone reef of boulders among the metal pier debris. Sparse life on the mobile sand limited to a few fish and infrequent lugworm casts, but the reef and pier structures support a mixed animal and algae turf.

West Bank Sailing ship wreckage 51.06595N, 1.27247E

Scattered sections of wreckage of an old sailing ship are partially buried in the mixed sediment seabed, and patrolled by a large shoal of bib. The wreckage is of wood, steel, copper or brass and some chain, and is mostly covered in a rich turf of hydroids, bryozoans, anemones, dead man's finger, seasquirts and sponges.

Around the wreck is a very gently undulating seabed comprising coarse sand with some shells and shell fragments, occasional pebbles and cobbles, and an abundance of broken rosworm tubes with a few clumps still intact. Mobile life includes small gobies, hermit crabs, flatfish, painted topshells, velvet swimming crabs, edible crabs, starfish and brittlestars.

Antenna hydroids



Dave Wood

Common starfish



Mike Cook



Painted topshell and white striped anemone

Dave Wood

Folkestone Ridge 51.01699N, 1.20138E

Large bank or ridge of sand with gravel, some boulders and pebbles, and extensive formations of rosworm tubes forming small reefs, supporting other life including several dahlia anemones.

Sand brittlestar and queen scallop



Dave Wood

Folkestone Hole 51.03395N, 1.27011E

A sandy field of cobbles, and small boulders, intermingled with rosworm formations, fist-sized colonies of potato crisp bryozoan and coral worms, and a bustling community of crustacean life including hermit, porcelain and several other crabs, many gobies, seaslugs, cowries, queen scallops, painted topshells, starfish and brittlestars.

Pomerania 51.04515N, 1.31398E

Wreck of the Pomerania, sunk in 1878, now covered in anemones, and a short turf of hydroids, bryozoans and sponges. Areas of sand and pebbles inside wreck. The wreck lies on flat sand with a few small depressions, and with areas of rosworm making up around 30% of the seabed.

Coral worm



Dave Wood

Dahlia and plumose anemone



Steff Buell



Dungeness 50.92038N 0.99820E

A mixed ground seabed with some exposed rock and some mud, and a variety of marine life.

The seabed slopes down quickly from the famous Dungeness shingle shore, reaching 35m at this site, just over 1km out.

St Mary's Sands 50.97123N, 1.18406E

Coarse, firm sand seabed with a thin, mobile (and sometimes rippled) layer at the top, and firm underneath. A small number of cobbles seen in the (relatively small) survey area, some partially buried in mobile sand, others standing up to about 5" proud. Cobbles covered in hydroid and bryozoan turf, including some tall species and also a tall (1") and somewhat damaged barnacle cover with gaps exposing bare cobble beneath. Small shrimps and spindly long-legged spider crabs present on the cobble turf. Sand with a few hermit crabs, gobies, and small necklace shells moving just below the sand.

Numbers of species recorded in each phylum, and the species most commonly recorded in each group.

Porifera (sponges) – 25 species, including: *Amphilectus fucorum* (shredded carrot sponge), *Halichondria panacea* (breadcrumb sponge), *Dysidea fragilis* (goosebump sponge), *Haliclona oculata* (mermaid's glove sponge), *Suberites* (sea orange sponge).

Cnidaria (jellyfish, corals and anemones) - 35 species, including: *Urticina felina* (dahlia anemone), *Alcyonium digitatum* (dead man's fingers), *Nemertesia antennina* (antenna hydroid), *Actinothoe sphyrodeta* (white striped anemone), *Tubularia indivisa* (oaten pipe hydroid), *Metridium senile* (plumose anemone), *Cereus pedunculatus* (daisy anemone), *Sagartia troglodytes*.

Comb jelly – 1 species: *Beroe* sp.

Annelida (polychaete worms) – 15 species, including: *Sabellaria spinulosa* (rossworm), *Lanice conchilega* (sand mason worm), *Pomatoceros triqueter* (keel worm), *Sabella pavonina* (peacock worm), *Bispira volutacornis* (double-spiral worm).

Crustaceans – 45 species, including: *Necora puber* (velvet swimming crab), *Cancer pagurus* (edible crab), *Macropodia* (long-legged spider crab), *Pagurus bernhardus* (hermit crab), *Galathea intermedia* (squat lobster), *Inachus* (leaches spider crab).

Molluscs – 43 species, including: *Calliostoma zizyphinum* (painted topshell), *Aequipecten opercularis* (queen scallop), *Pholadidae* (piddocks), *Buccinum undatum* (common whelk), *Hinia reticulata* (netted dog whelk), *Acanthodoris pilosa* (white hedgehog seaslug), *Sepia officinalis* (cuttlefish), *Janolus cristatus* (crystal seaslug), *Mytilus edulis* (blue mussel).

Bryozoans (sea mats) – 15 species, including: *Alcyonidium diaphanum* (finger bryozoan), *Flustra foliacea* (hornwrack), *Cellepora pumicosa* (pumice bryozoan), *Bugula* (spiral bryozoan), *Pentapora foliacea* (potato crisp bryozoan).

Horseshoe worm – 1 species: *Phoronis hippocrepia*

Echinoderms – 12 species, including: *Asterias rubens* (common starfish), *Ophiura albida* (sand brittlestar), *Crossaster papposus* (common sunstar), *Ophiothrix fragilis* (common brittlestar).

Chordata (sea squirts) – 11 species, including *Molgula* sp., *Clavelina lepadiformis* (lightbulb seasquirt), *Ciona intestinalis* (yellow-ringed seasquirt), *Dendrodoa grossularia* (gooseberry seasquirt).

Chordata (fish) – 37 species, including: *Scyliorhinus canicula* (lesser spotted dogfish), *Gobiidae* (gobies), *Parablennius gattorugine* (tompot blenny), *Trisopterus luscus* (bib), *Ctenolabrus rupestris* (goldsinny), *Callionymus lyra* (dragonet), *Labrus bergylta* (ballan wrasse), *Pholis gunnellus* (butterfish).

Algae - 33 species, including: *Corallinaceae* (encrusting pink algae), *Palmaria palmata* (dulse), *Calliblepharis ciliata* (red fringe weed), *Plocamium cartilagineum* (red comb weed), *Laminaria* (kelp).

Thank you! Grateful thanks to all the divers who took part in the official Seasearch dives, and who undertook Seasearch surveys independently on their own dives, submitting a total of 102 forms over the summer of 2009.

2009 Kent Seasearch Divers: Adam Stevenson, Brian Stockwell, Bryony Chapman, Clare Brant, Dave Wood, Georgia Conolly, Ian Barrie, Jason Armstrong, Jon Bramley, Kaisa Muhonen, Kate Kellett, Kay Skinner, Keith Barrie, Kevin Aubrey, Lesly Conroy, Mark Card, Mike Cook, Paul Hymers, Paula Young, Phil Buckley, Rachel Coppock, Richard Stewart, Sharon Meadows, Steff Buell and Tim O'Hare.

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Thanks also to David Batchelor and the Neptune crew.



Kent Seasearch survey divers with Kaddy Lee-Preston and the BBC SE's Inside Out team, after diving out of Dover in June 2009. The film and interviews featured in a programme about Marine Protected Areas in November.

Training in 2009

33 divers undertook the Kent Seasearch Observer courses in 2009, held in Canterbury and London.



Seasearch Observer course in Canterbury, 2009

Seasearch is a national volunteer survey project for recreational divers to support conservation of marine life. Kent Seasearch is run by Kent Wildlife Trust. We are very grateful for a contribution towards the 2009 programme from Natural England and Environment Agency via National Seasearch. Grateful thanks also go to Natural England's Countdown 2010 programme and the Crown Estate for supporting the surveys of the chalk around Dover.

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Kent Wildlife Trust is the leading conservation charity for Kent and Medway. Charity No: 239992.

