

## Life On The Ocean Wave: Going Nowhere In Particular



Photo Paul Gainey

Traditionally this crab, *Planes minutus*, was carried on floating seaweed (*Sargassum natans* or *S. fluitans*) from the Sargasso Sea. Commonly known as the Gulfweed or Floating Crab, it is also called Columbus Crab because Christopher Columbus was said to know that he was approaching land when he saw this crab clinging to seaweed!

*The Gulfweed Crab is always in motion  
As its whole life is spent on the ocean  
Its larvae must hitch a life-time lift  
On wood, weed or, now, plastic drift  
Borne nor'east by current and breeze.  
They may reach us from warmer seas  
With no return ticket they are destined to die  
Chilled in our waters or left high and dry.*

This verse was prompted when Steve Trehwella found the very first Dorset record for this species when a number of them were found clinging to plastic and others were inside some wood. Hearing of this, Paul Gainey looked more carefully at plastic debris covered with goose-barnacles and soon found them on more than one Cornish shore. These were the first Cornish records for a century. After this was published, Jane Darke found one and another was reported by Paul Semmens. and Martin Eliot. Three specimens discovered by sharp-eyed Gilan Goodall were taken to the Blue Reef Aquarium where I believe they are still living.

Stella Turk

## CISFBR Spring Meeting and AGM

The CISFBR Spring meeting and AGM was held on Saturday 3<sup>rd</sup> March 2007 at Fraddon Village Hall with the theme of the meeting of 'RECORDING CHANGES IN CORNWALL'S WILDLIFE'.

**Colin French**, Botanical Society of the British Isles recorder for West Cornwall, gave a very detailed talk on **how recording of the Cornish Flora has changed** over the years. With the aid of maps, bar charts and detailed analysis from the ERICA (Electronic Recording In Cornwall Automated) for Windows database, Colin was able to show that there have been peaks and troughs of number of records made up to 2007. With analysis of the records (omitting some species without sufficient or consistent information) Colin made an index of change of species within Cornwall in separate date

classes. This highlighted those species that were undergoing the biggest decreases or increases in distribution (from records made and submitted), and the findings broadly followed similar analysis made from the BSBI from the Atlas of the British Flora, published in 2002. Species from bogs and wetlands and arable fields suffered the biggest declines, and the biggest increases were from those non-native species such as Three-cornered Leek *Allium triquetrum* that have managed to exploit the habitats in Cornwall with its mild and moist climate. However it was noted that some native species that have appeared to have increased such as Purple Loosestrife *Lythrum salicaria*, may have been under-recorded in previous years. The message from Colin's talk was that we need to continue to record the flora of Cornwall in a systematic and accurate way using suitable databases (ERICA for Windows is the best) so as to understand and note why it may be changing.

**Doug Herdson** from the National Marine Aquarium in Plymouth who also maintains a database of marine fish gave a talk on 'Rare Fish – are they indicators of climate change?' Doug gave a very detailed commentary and slide show of some of the more notable fish that have been recorded and caught by numerous people (including many from fishing trawlers and anglers) that have been reported to Doug. Problems that exist when analysing the data was that; some species had been mis-identified in the past; the period of reporting is inconsistent, with more reports coming in over the last few years; not all trawlers or anglers may report unusual fish caught; marine environments are under-recorded. Though several of the species were indeed from warmer waters than normally around the coast of Cornwall it was difficult to say for sure whether they were proof of climate change. Again more data is needed to understand the overall picture of how fish may be moving in response to climate change (which could be locally cooling as much as warming) and Doug continues to collect data to assess the situation.

**Geraldine Holyoak**, mollusc recorder for Cornwall, gave a presentation of **the changes in recording molluscs in Cornwall**. Geraldine demonstrated that although several people have been active in recording molluscs in Cornwall in the past, there is still much to learn about the distribution of molluscs in Cornwall. Recent taxonomic changes, difficulties in sampling and identification and destruction of habitats have made recording molluscs problematical, especially when most of the recording in the whole of Cornwall is by just one person - Geraldine herself! However with the previous records made Geraldine is able to build on what has been done and continues to build a picture of what molluscs we have in Cornwall and to assess any changes that may be occurring in their distribution. Geraldine noted that alien species were certainly being recorded more frequently and that some species may be spreading rapidly.

After the meeting a short **AGM** was held being chaired by Adrian Spalding. The minutes of the previous AGM were accepted and the main item discussed was that the CISFBR committee had been discussing producing a second edition of the Cornwall Red Data Book, which in progress.

The officer posts were re-structured, the changes for 2007-2008 being –

**Chair – Colin French** (previously vice-chair)

**Vice-chair – Rosemary Parslow** (previously chair)

**General Secretary (includes acting as treasurer and membership) – Matt Stribley** (previously Minutes Secretary)

**Committee Meetings Minutes Secretary – Ian Bennallick** (previously Secretary)

**Newsletter Editor – Malcolm Lee** (unchanged)

**Publications committee – Colin French, David Holyoak, Chris Haes** (unchanged)

**Meetings and events secretary – to be decided for each event**

The current 2007/2008 committee has 18 members, and it was voted that the pool of committee members be increased to ensure future meetings are well attended and well represented by other recorders not already involved.

Chris Haes was thanked for his work as Treasurer over the years and was made an Honorary Member.

*Ian Bennallick*

---

## **Intertidal *Zostera* returns to the Helford VMCA**

Seagrasses, often called eelgrasses in Britain, are an unusual worldwide group of about 60 species of underwater marine flowering plants, all monocotyledons. They form valuable and often overlooked habitats, providing important ecological and economic components of coastal systems around every continent except Antarctica.

As long as there is sufficient light penetration to support their growth, tufts of strap-like leaves grow based in muddy sediments fringing the land or coral reefs, filtering coastal waters, dissipating wave energy and anchoring sediments. They are important as the primary food of threatened species such as dugongs, manatees and green turtles, for providing nursery areas to the larger oceans and a habitat for a wide range of molluscs including cuttlefish also sea anemones, fish and epiphytic algae. In Britain, wildfowl can be added to the list of beneficiaries as they graze on estuarine eelgrass meadows.

### **Threats**

Seagrasses are subject to many threats both anthropogenic and natural. Nutrient and sediment run-off from the land affects water clarity and direct harm to beds occurs from dredging, boating, trampling and land reclamation. Most beds are subtidal and this has a mitigating effect on seasonal and diurnal temperature changes but where there is leaf exposure on the lower tidal cycles extremes of frost or sunshine or storms can be very damaging. Increases in water temperatures may have a significant effect.

Circular bare patches are sometimes observed and attributed to die-back from the central rhizome, discussion as to the specific cause is on-going. These should not be confused with anchor or mooring damage.

A well recognised natural threat is the wasting disease attributed to a slime mould type fungus *Labyrinthula zosterae* which seems to be present all the time at low levels but which presents serious symptoms when the plant is under stress. It can be recognised as black blotches on young growth rather than the blackening of leaves due to natural ageing and die-back. Periodic outbreaks have been recorded such as in the 1930s when a North America outbreak moved across the North Atlantic to Europe devastating vast areas including the Cornish beds. Ensuing periods of recovery were often followed by renewed outbreaks but even the recovery between 1955 and 1965 did not result in the recolonisation of some areas.

### **British *Zostera***

In the UK eelgrass beds are well-known along the shallower sea coast, such as Torbay or Isles of Scilly or in large estuaries, the Severn, whilst more locally smaller beds are found in the Fal/Helford complex, Mounts Bay, Fowey, Looe

and Tamar. Although flowering seed heads can be seen there has been no evidence of any widespread propagation by seed and it is believed that mainly vegetative reproduction takes place in Britain.

The largest and commonest of the British species is *Zostera marina* var. *marina* mostly occurring in the shallow sublittoral to lower littoral zone down to 5m as seen in the Helford River estuary. *Zostera marina* var. *stenophylla* favours mudflats and shallower water and has a more easterly UK distribution. *Zostera noltei*, Dwarf eelgrass, grows on mud banks in creeks and estuaries from half tide to low water and is found at Looe and St John's Lake but is no longer seen in the Helford VMCA.

### **Recording *Zostera* in the Helford VMCA**

Until the late 1980s there were significant **intertidal** beds of *Zostera marina* var. *marina* to be seen at low water on spring tides in the HVMCA at Helford Passage, Treath and Gillan Harbour adjacent to areas renowned for their cockles. However this *Zostera* disappeared remarkably quickly in the mid 1980s and was gone by 1987. This coincided with natural events such as the occurrence of heavy winter frost and a period of intense summer sunshine which could be expected to cause problems on beds exposed at midday and midnight – part of Helford's normal tidal cycle. It was also a period when the devastating effects of the widely used tributyl tin (TBT) anti-fouling paint for boats were being recognised on molluscs such as oysters and other fauna. There is no reason to suppose that other living tissue including plant material was not also affected. The proximity of the eelgrass beds to areas dug extensively for a meagre supply of cockles also helped to destabilise the beds.

No detailed records of the extent of the **sub-tidal** bed off Durgan, nearer the mouth of the river, were available but knowledgeable observers suggested a less flourishing bed by the 1980s. In the mid 1990s, divers, led by Tony Sutton for the HVMCA, conducted some detailed monitoring of the area and individual plants. Subsequently this bed has been observed to spread and at extreme low water healthy plants can now be seen at Durgan. Winter water temperatures have risen in more recent years with a longer growing season in consequence. Concerns of damage from casual anchoring resulted in some warning notices on the main beds and this has helped to prevent rhizome disturbance and damage from propellers.

### **Restoration attempted**

In 1992 we experimented by replanting healthy leaf and rhizome material gathered from the shallower edge of the Durgan bed into a specially laid circle of rocks on the site of the former eelgrass beds at Helford Passage. Although these transplants appeared to be healthy growing new roots at first, they had disappeared within 6 months; whether this was due to substrate unsuitability, sediment movement, storms, human interference (it is a busy area), seasonal factors or some other cause is open to speculation.

### **A natural return!**

Nearly two decades have passed since the disappearance of the intertidal Helford Passage beds so it was with great surprise and delight that in summer 2005 I found some small tufts of rooted *Zostera* spread along Bar Beach at Helford Passage. Subsequently some detailed measurements were taken with the help of Paul Gainey. Although this did not turn into a flourishing bed overnight in 2006 some were still there! Earlier this year it was encouraging to see that subtidal plants were spreading upriver from the Durgan beds through the narrows and into the Helford Passage ferry cove! This summer I hope to see some robust tufts becoming sufficiently established to form a new intertidal *Zostera* bed at the end of Bar Beach to compare with that of 1980!

*Dr Pamela E Tompsett*

## The use of the hand held G.P.S. device in Biological Recording



Figure 1: The Garmin Geko 201 handheld G.P.S. device.

### The Global Positioning System or G.P.S

A G.P.S. recorder is an electronic tracking device designed to determine its position on the earth's surface. That information can be then used in a variety of different ways. For example, some G.P.S. devices can display a map showing the current location, or they can keep a record of places visited, or they can be used simply to provide a grid reference. It is this last aspect of basic hand held G.P.S. devices that will be discussed here.

There are now a huge number of basic hand held G.P.S. devices available from a relatively few companies, including Garmin, Magellan and Silva. These range in price from about £80 to several hundred pounds. This difference in price usually reflects the functionality of the G.P.S. device rather than its level of accuracy.

### How a G.P.S receiver works

Surrounding the earth there are 27 US military Navstar satellites (12,500 miles in space) constantly send out a coded signal giving their exact position in space and time. The G.P.S. receiver decodes the signal from each satellite within range and calculates how long it took for the radio message to arrive to determine distance from the satellite. By measuring the distance from 3 or more satellites, the location of the G.P.S. receiver can be obtained by triangulation. Furthermore, elevation can be calculated from 4 or more satellites.

### Accuracy

Perhaps because G.P.S. receivers use 'space age' technology, the expectation is they are highly accurate and the degree of accuracy is constant over time. In reality, they are not as accurate as the grid reference readings they provide (they give 12 figure grid references which suggests they are accurate to 1 square metre), but crucially, from the point of view of a biological recorder, they are at least an order of magnitude better than a person trying to read a grid reference off an Ordnance Survey map in the field.

There are a number of factors, which determine the accuracy of G.P.S. devices. These include:

- Random error. The G.P.S. system largely depends on American military satellites and the signal they broadcast includes a random error designed to ensure that civilian G.P.S. devices are not as accurate as those used by the military. The magnitude of this random error can fluctuate over time according to the perceived threat levels to National Security.
- Atmospheric, reflection of signals, and timing clock errors are all factors, which will create noise and will reduce the accuracy of individual readings.

- Terrain – buildings, trees, deep valleys, etc. A G.P.S. device needs a clear 'vision' of at least 3 satellites to get a reasonable fix. This can be difficult to achieve in dense woodland or amongst high buildings and as a result there are times when a G.P.S. device will fail to produce a grid reference.
- The Conversion equations from latitude/longitude to grid reference do not produce results with the same accuracy across Britain.

### Improving accuracy

A number of techniques are used by various G.P.S. devices to improve the accuracy of readings. Some, for example, average measurements over time, some use electronic gyroscopes to help maintain positional accuracy and some use Differential G.P.S. This technique receives G.P.S. signals at a fixed, accurately known, site on the ground and the computed error in the received G.P.S. signals is then transmitted, so that roving G.P.S. receivers can make adjustments and improve accuracy.

### A case in point

A couple of years ago the author was using a G.P.S. tracking device that constantly recorded its position every 20 seconds. As it happened, the G.P.S. device did not move for several days, and when these G.P.S. readings were plotted on a map, it was found the readings were scattered within an ellipse with the greatest concentration of reading towards the centre of the ellipse (see Fig. 2). This scattering of readings demonstrated the cumulative effects of the G.P.S. errors. However, the actual position of the G.P.S. device, when plotted on the map, was outside the main cluster of readings. This result demonstrates the need to calibrate G.P.S. devices, if they are to be relied upon to produce accurate grid references, although for most biological recording requirements this is not really necessary.

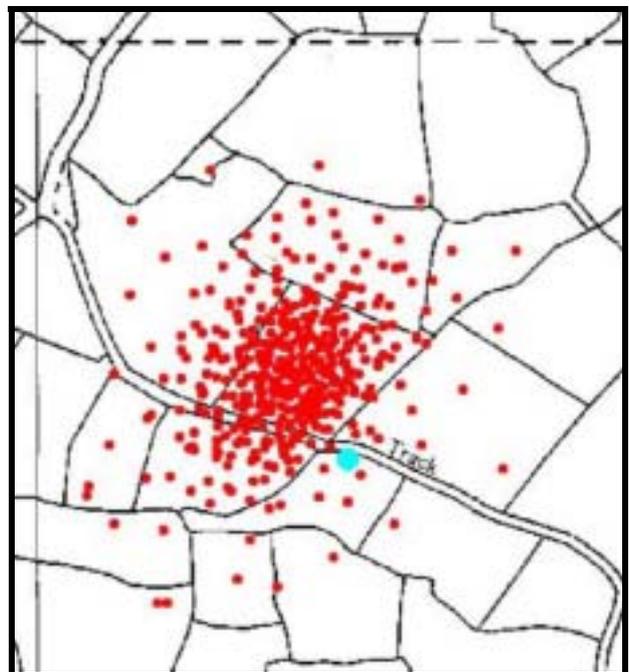


Figure 2: Plotting readings from a static G.P.S. device.

Despite the inherent inaccuracies of hand-held G.P.S. devices, they are still, at least, an order of magnitude better than a person trying to read a grid reference off an Ordnance Survey map in the field.

### Obtaining a grid reference

The procedures for obtaining a grid reference will vary according to the G.P.S. device. When you switch on a hand held G.P.S. device it starts tracking. Within a few seconds the GPS should indicate how many satellites it is taking readings from, the strength of signal and the accuracy of the fix. The

inner circle shown on the display (see Fig. 3) shows satellites overhead and the outer circle shows the horizon.



Figure 3: Obtaining readings from a G.P.S. device.

The accuracy depends on such factors as:

- the time of day. In Cornwall the morning tends to give better readings than the afternoon.
- which way the GPS faces. Rotating the G.P.S. device usually shows a variation in accuracy on the display. In general once you have found the most accurate bearing to hold the G.P.S. device, it is usually quicker to take all readings on that bearing for that day.
- how it is held. It is better to hold the G.P.S. device from underneath so your hand does not mask the signal.
- how many satellites are within a clear line of sight.

The accuracy will continue to improve and usually reaches its optimum in 30 to 60 seconds. When conditions are very good the accuracy given will be at best 5 metres. More often it is 7 metres (i.e. there is a high probability that the actual grid reference is within 7 metres of the reading given).

Hand held G.P.S. devices are not designed primarily to provide grid references. Consequently, to obtain the grid reference the menu button has to be pressed a number of times (4 times and the OK button once in the case of the Garmin Geko 201). The grid reference obtained is normally a 12 figure one (e.g. SW638<sup>42</sup>405<sup>09</sup>), which defines a 1 metre square. This is more accurate than reality and it is best to discount the last digit of the easting and northing as meaningless and record the grid reference as a 10 figure one (e.g. SW638<sup>4</sup>405<sup>0</sup>).

#### Understanding a G.P.S. grid reference

An Ordnance Survey 10 figure grid reference defines a 10 metre square plot of land on the earth's surface, and the grid reference itself actually refers to the bottom left hand corner of that plot of land (see the coloured square in fig. 4). In the case of a grid reference derived from a G.P.S. device, it is probably better to consider the grid reference as the central point of a circle, which defines the most likely area on the ground where the reading was taken. The size of this circle is governed by the degree of G.P.S. error.

Perhaps the best way to interpret a grid reference derived from a G.P.S. device is to consider there is a 66% chance that the actual position on the ground where the reading was taken is within a 10 metre radius of the grid reference (the inner circle shown on Fig. 4) and there is a 95% chance that the actual position is within a 20 metre radius (the outer circle shown on Fig. 4).

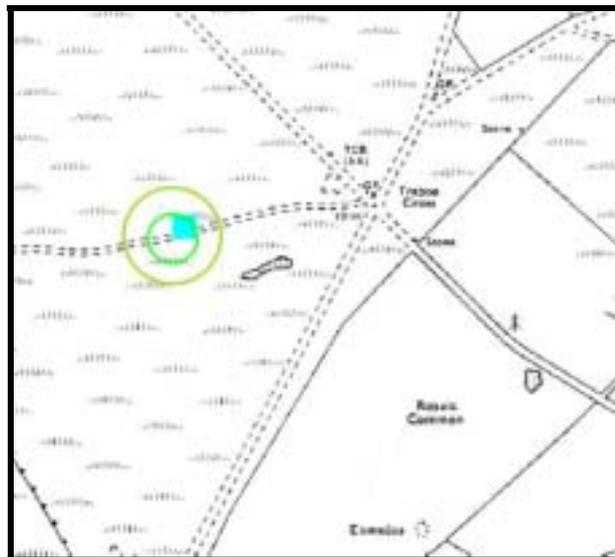


Figure 4: A 10 figure grid reference.

#### General points

Comparison of readings in the field between recorders usually shows the same result for other Garmin devices and very similar if not identical results for other makes such as Magellan. So, for the purpose of obtaining grid references, it does not matter what handheld device is used.

G.P.S. devices consume batteries at a fast rate. It is recommended that as soon as a grid reference is obtained, the device is switched off again. In this way approximately, 1000 readings can be obtained from one set of batteries.

When you purchase a G.P.S. device you normally have to tell it what mapping projection system is in use so that it makes the correct conversion from latitude/longitude to grid reference.

Each grid reference is stored within the memory of the G.P.S. device as a marker. Once the memory is filled up it will need to be cleared to enable further grid references to be obtained.

Buy a G.P.S. with proper buttons (they last longer), cheap handheld G.P.S. devices are perfectly adequate for the needs of most biological recorders.

*Colin French*

#### Articles For Future Newsletters

If you have news, articles or photos of interest to CISFBR members, please send them to the newsletter editor –

**Malcolm Lee**  
**Gullrock**  
**Port Gaverne**  
**Port Isaac**  
**Cornwall**  
**PL29 3SQ.**  
e-mail: [gullrock@ukonline.co.uk](mailto:gullrock@ukonline.co.uk)

Sending articles by e-mail as a WORD document is easiest, but any other format, or a typed or hand written article will always be very acceptable.

## New Cornish course in biological recording

As some of you are aware, Duchy College has been busy developing a new university level course for individuals interested in the species and habitats found within Cornwall. The course has been approved by the University of Plymouth and will begin this September (2007).

The course programme aims to develop practical abilities in the identification, recording and understanding of habitats and species. It covers the terrestrial, freshwater, coastal and marine environments, and has been devised in conjunction with the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS).

It has been developed with both the interested amateur naturalist and the professional ecologist in mind. Whether you are just starting out in the field of biological recording or have been studying one particular taxonomic group for a number of years, this course will expand your ecological horizons!

There are six modules in the Certificate of Biological Recording course:

- Field Botany
- Survey Techniques
- Introductory Recorders Workshops
- Specialist Recorders Workshops
- Habitat Management
- Study Skills, IT and Recording Technology

The various modules will be taught by both College staff and leading biological recorders in Cornwall – learning in a friendly environment with the experts. Emphasis is placed on learning field skills and developing practical identification and recording skills. Indeed the Field Botany module involves learning in the field for 75% of the time, at various wildlife sites throughout Cornwall.

The two modules involving Recorders Workshops are based around attending a set number of one/two day recording workshops, held in conjunction with ERCCIS and other organisations, covering a variety of topics such as recording particular invertebrate groups, lower plants, mammals. You select the workshops you wish to participate in from the full list on offer each year (you can choose to take up to five years to complete the course).

This course is unique in combining online study from home with field work to local wildlife sites and college attendance. Teaching materials for many of the modules will be available online; for example the Field Botany module will have information about basic taxonomy, along with an introduction to the structure and ecology of plants online, whilst the face-to-face teaching and practical identification and recording skills will be learnt during four intensive weekends from May to August.

The modules involving Survey Techniques; Habitat Management; and Study Skills, IT and Recording Technology will be run at Duchy College, although there will be much field work included in the first two modules mentioned, and hands-on IT-based learning in the latter.

You can choose to undertake just one or two modules, or individual modules may be studied as building blocks to achieve a full qualification (the equivalent to the first year of a degree course).

It is envisaged that visits will also be made to local organisations involved with biological recording, including ERCCIS, Royal Cornwall Museum and Cornwall County Council amongst others.

Whilst it is appreciated that in-depth knowledge of a taxonomic group and the accompanying identification skills require a lifetime's worth of work, this course can equip individuals with the basic skills and appreciation of biological recording, along with the opportunity to advance the study of

particular species groups and an awareness of the ecological diversity within the County of Cornwall.

So whether you want to gain a formal qualification in biological recording to further your career, or just want your thirst for knowledge quenched, contact Duchy College for further information (see below for contact details) and to enrol in the course. We look forward to welcoming you to Duchy College!

### For more information contact:

Nick Taylor or Sarah Board  
t: 01209 722100  
e: [rosewarne.enquiries@duchy.ac.uk](mailto:rosewarne.enquiries@duchy.ac.uk)  
w: [www.duchy.ac.uk/rosewarne](http://www.duchy.ac.uk/rosewarne)

Sarah Board

---

## 2007 Meetings

### Booking essential for these meetings. Contacts -

(BCG): *Botanical Cornwall Group*: Ian Bernallick (01726 890384)  
(CMG) *Cornwall Moth Group*: Phil Boggis (01726 66124)  
(HMC) *Helford Marine Cons<sup>n</sup>*: Pamela Tompsett (01209 842316)

### August

**Sunday 5<sup>th</sup> August** (BCG) South of Plusha (SX27P). A tetrad that needs updating, just on the edge of Bodmin Moor. Moorland, woodland, hedges and streams to explore for *Carum verticillatum*, *Chamaemelum nobile*, *Narthecium ossifragum*, *Polystichum aculeatum* and other moorland species. Meet 10.30am at filling station at Plusha SX247802

**Saturday 11<sup>th</sup> August** (CMG) National Moth Night is an National event jointly organised by Atropos (the journal for butterfly, moth and dragonfly enthusiasts) and Butterfly Conservation. Amongst one of a number of venues in Cornwall, National Moth Night is being held once again at Trellissick Gardens near Truro and hosted by Head Gardener, Barry Champion. Meet in the car park, map ref. SW837396 at 8.45pm. Please bring a torch and hot drink. Target Species: Four-spotted Footman. Ten were recorded here on the same date during the 2001 NMN. Details: Phil Boggis. Tel. 01726 66124.

**Saturday 11<sup>th</sup> August** (CMG) Penlee Battery CWT Reserve (SX 436491). Meet at Reserve Car Park (SX436491) at 8.45 pm. NMN target species, Jersey Tiger and Four-spotted Footman both possible. Details Leon Truscott 01752 812023

**Sunday August 12<sup>th</sup>** (CISFBR) Newlyn Downs - a meeting to celebrate the 10th anniversary of CISFBR. We will have a recording session (10am start, meet at SW836551) within this large disused mine site and its extensive heathland, followed by a barbecue. Details: Ian Bernallick Tel: 01726 890384 or 07968 113675

**Wednesday 22<sup>nd</sup> August** (BCG) Watch Hill And Foxhole (SW95S) The heart of the China clay district with spoil heaps, remnant heathland, granite walls and wet willow scrub. Meet 10.30am east of Old Pound SW975553

### September

**Friday 14<sup>th</sup> September** (CMG) Windmill Farm Nature Reserve, on the Lizard (SW61). 20.00 - 22.30 Come and see what we can catch in our moth traps tonight. There will be many resident and migrant moths to see and we may be lucky enough to find one of the giant hawk moths as well. Our moth expert will be on hand to explain how the traps work and more about the insects found. Meet down the very end of the track at (SW 694 152). Access to the reserve is 1 mile north of Lizard Village off the A3083. Turn right going towards Lizard Village at the "Wild Camping" sign and follow the (very bumpy) lane until you see the windmill. Wear suitable clothing and footwear for traipsing across the reserve and bring a torch and something to sit on. Leader Phil Boggis (Cornwall Moth Group) Booking essential so contact Cornwall Wildlife Trust on 01872 273939.

**Friday 21<sup>st</sup> September** (CMG) Trencrom Hill, near St Ives (SW53) Come and find out what moths are flying tonight. There will, hopefully, be many different species to try and identify and our expert will be on hand to answer any of your questions. Meet in the small car park near base of the hill (SW 517 359) Access is from the A3074 Hayle to St Ives road, turning left onto the unclassified road to Lelant Downs and then continuing on the road to Nancledra. The car park is near to Gonev Viscoe. Wear suitable clothing and footwear for traipsing across the reserve and bring a torch and something to sit on. Leader Phil Boggis (Cornwall Moth Group) Booking essential so contact Cornwall Wildlife Trust on 01872 273939

## October onwards

**Saturday 13<sup>th</sup> October** (CMG) Breney Common, near Bodmin 14.00-16.00 Whatever the weather, come and enjoy this lovely area of lowland heath as we search for day-flying moths, butterflies and their caterpillars, if it's fine; or leaf-miners, fungi and lichens, if it's not. Our expert leader will point out some of the rich biodiversity found in this type of habitat and answer any questions you may wish to ask. Leader John Gregory (Cornwall Moth & Fungi Groups) Organised in celebration of Heath Fest 2007. To book contact the Cornwall Wildlife Trust on (01872) 273939 ext 212.

**Saturday 27<sup>th</sup> October** (HMC) Otter Conservation: meddling, monitoring and muddling through - Dr Paul Chanin, international otter expert, talks about the mile-stones of the last 30 years of otter studies. £2. Members and all children free. 7.30 p.m. Gweek Village Hall, beside the National Seal Sanctuary OS Ref. SW 709 266. Tel: David 01326 341181 or Martin 01326 561952

**Friday 23<sup>rd</sup> November** (HMC) Fascinating Fish - the story of Bass and other special species - A rare opportunity to meet national bass experts Graham Pickett and John Leballeur and learn some remarkable facts about one of our most important British fish. £2. Members free. 7.30 p.m. Mawgan Recreation Hall, Mawgan-in-Meneage, near War Memorial roundabout OS Grid Ref. SW 702 244 Tel: Pamela 01209 842316 or Martin 01326 561952

**Saturday 19<sup>th</sup> January 2008** (HMC) Mud, mud, glorious mud! - The hidden world of our Helford creeks revealed by the well-known marine broadcaster, Dr Tegwyn Harris, with some amazing stories - not to be missed. £2. Members and all children free. 7.30 p.m. Gweek Village Hall, beside the National Seal Sanctuary OS Ref. SW 709 266. Tel: David 01326 341181 or Pamela 01209 842316

## Violet Sea Snails



Photo Paul Gainey

Finding light-weight violet-coloured shells on the strandline causes even an idle observer to look more closely. Light-weight? In contrast to most seashells they are fragile, no thicker than a land snail, and thus designed for life on the surface of the sea. Supported by a float of bubble-filled mucus, they sink if this float is destroyed. They feed on colonial hydrozoans - *Veleva veleva* the well named 'By-the-Wind Sailors', *Porpita porpita*, and the Portuguese Man o' War *Physalia physalia*. Their prey is said to be anaesthetised by the purple dye. They are cosmopolitan between the latitudes of 50 degrees. and 40 degrees S, although they can drift beyond these limits to less hospitable waters.

Thus they drift to British shores, carried by the North Atlantic arm of the Gulf Stream to strand on our western shores as well as those of Ireland. The above notes refer to *Janthina janthina*, *J. pallida* and *J. exigua* but there are differences in their life histories. The first two species release larvae whereas *J. exigua* lays its eggs on the raft of mucus. All the species start life as male, later becoming female.

There are more records on the shores of Cornwall and SW Ireland than any other part of northern Europe. These strandings, often with the animal still alive, are mostly *J. janthina* which sometimes drifts as far as west Scotland and whilst there are many years with no reports at all, every decade or so there are hundreds. In 2006, for the first time, a count was made and collated by one of us (PAG) who had a total of over 400 specimens, many of them alive. Amongst

them were a few specimens of *J. pallida* for which there seem only to be records from Cornwall. *Janthina exigua* has been stranded on Cornish shores as well as those of the west coast of Ireland in the past.

We can learn more about these molluscs and their unusual lives by recording numbers, sizes and any associated species. Sometimes there are vast numbers of By-the-Wind Sailors, and yet few violet sea snails, and vice versa. There is some evidence that strandings have increased over the past half century, to judge by the paucity of earlier records.

Paul Gainey and Stella Turk

## Google Earth

Those with access to broadband may already have sampled the delights of the Google Earth program, with seamless satellite and aerial images of the whole world, providing a virtual earth to fly over and zoom down on. Until recently images for Cornwall were poor, but (*in common with many other UK parts*) they have now been upgraded to an impressive 50cm resolution. The free program is available for Windows 2000, XP or Vista, Mac OS X, and Linux, from this address -

<http://earth.google.com/download-earth.html>

Because of the large data flow needed to build up the image from the Google server, broadband is essential. Very conveniently for UK residents, the search box accepts our post codes, to fly you straight above your own home. The images are fairly recent, being about four years old. If you are planning to survey unfamiliar territory, a prior visit to Google Earth will pay dividends by readily identifying the unimproved areas.

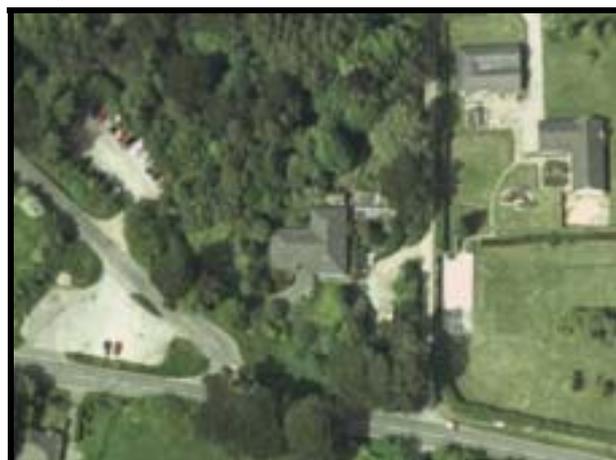


Image: Google Earth

As a sample, this image is of the Wildlife Trust premises at Allet, viewed from an altitude of 600 metres, and you can zoom in to 100 metres before the image gets a bit fuzzy.

Malcolm Lee

### CISFBR Officers for 2007/08

**Chair:** Dr Colin French, 12 Seton Gardens, Weeth Road, Camborne, TR14 7JS. Tel: 01209 613942

**Vice Chair:** Rosemary Parslow, 17 St Michael's Road, Ponsanooth, Truro, TR3 7ED. Tel: 01872 865013

**General Secretary & Treasurer:** Matt Stribley, 8 St Georges Road, Truro, TR1 3JE. Tel: 01872 272900

**Committee Meetings Minutes Secretary:** Ian Bennallick, Lower Polmorla, St Wenn, Bodmin, PL30 5PE. Tel: 01726 890384

e-mail: [ianbennallick@btinternet.com](mailto:ianbennallick@btinternet.com)

**Newsletter Editor:** Malcolm Lee, Gullrock, Port Gaverne, Port Isaac, PL29 3SQ. Tel: 01208 880106

e-mail: [gullrock@ukonline.co.uk](mailto:gullrock@ukonline.co.uk)

**Committee:** All the above plus Tony Atkinson, Jacqui Davey, Tim Dingle (*corresponding member*), Chris Haes, Bernard Hocking, David Holyoak, Loveday Jenkin, Catriona Neil, Joan Opie, Treve Opie, Dr Chris Page, Adrian Spalding, and Dr Pamela Tompsett