Seven Tidings Working in partnership for the future of the Severn Estuary Issue**7** Autumn**2005**

Allthe latest news from around the estuary

Inside...

The Wild Bore

Severn's **Shifting Sands**

Explore the **Quantocks Coast**

Lydney Dock Opening

Severn Bridges

Steep Holm is where the heart is



The Dynamic Severn

Welcome!

Welcome to the new, improved **'Severn Tidings'.** I hope you like the new style. Marking 10 years of partnership, it's double the size of previous editions,



so there's far more room for articles and news to celebrate the we share.

Chairman of the Severn Cllr Peter Tyzack

This newsletter is produced by the Severn Estuary Partnership.

Our aim is to bring together people to work in partnership for the future of the Severn Estuary.



Grant aiding from the EC Interreg IIIb programme has supported the expansion of this newsletter, as part of the COASTATLANTIC programme.

Would your organisation like to sponsor future editions?

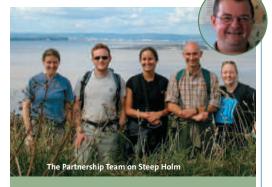
For further information on the articles in this newsletter or for any other queries please contact:

The Severn Estuary Partnership School of Earth, Ocean and Planetary Sciences, Cardiff University, Main Building, Park Place, Cardiff CF10 3YE.

Tel: 02920 874713 Email: severn@cf.ac.uk www.severnestuarypartnership.org

Editor lim Mitchell Articles Natasha Barker, Steve Knowles, Lia Moutselou

All photographs © Severn Estuary Partnership unless otherwise stated



The Partnership team, from left to right, Natasha Barker (Partnership Officer), Jim Mitchell (Access and Interpetation Officer), Lia Moutselou (Partnership Assistant), Steve Knowles (Natural Heritage and GIS Officer), Wendy Dodds (Partnership Assistant). Inset – Nick Rodgers (Finance Assistant)

The Dynamic Severn

Britain's longest river brings vast quantities of water into the Severn Estuary. Europe's biggest tide takes masses of water back up into the heart of the mainland. The mighty Severn influences the way we live in many ways - and deserves all the attention we can give it!

BBC Coast

The Severn played a starring role in the recent BBC 'Coast'. Nowhere around our shores has a more intimate relation with the surge and pull of the sea. The series recognised that the Severn Estuary is a highly dynamic waterway, with spring tides that vary as much as 50 feet (15m) and very strong currents, whirlpools and eddies. Many local people treat the Severn with respect and even hesitation, and children are rightly warned about the fast tides and deep, sinking mud.

What a bore!

To get a feel for the Severn's immense tide and the dynamic affect it has on our shoreline, there's nothing better than watching the **Severn Bore**. As the flood tides of the Severn forge inland up the narrowing and twisting channel of the estuary, they become so constricted that the force of the sea's push causes the water at the rear of the surge to overtake the leading wave and build up a wall of water known as the bore. It travels inland relentlessly at the speed of a cantering horse and tons of water follow for an hour after high tide. On about 130 days of the year, the tidal surge produces a wave worth watching and on the highest tides the impressive bores are a pull for surfers, kayakers, sailboarders and hundreds of onlookers. By day the bore can produce a carnival atmosphere amongst the crowds. By night, the wave is heard before it is seen – a gentle fluctuating whoosh approaching through the moonlight that heightens the sense of wonder and mystery.

Waterway to the world

The Severn Estuary is made even more dynamic and diverse due to human influences. The Severn coast has been developed by people for many centuries. The waterway is the link to the rest of the world, and historical ports like Cardiff and Bristol have become economic powerhouses of the region, owing their presence to the estuary and its Atlantic gateway. These thriving economies exist alongside some of the UK's most beautiful coastline from Nash Point and the Glamorgan Heritage Coast in Wales, to the Mendips, Quantocks and Exmoor National Park in England. The Severn is no small waterway. The estuary was formed 10,000 years ago when meltwaters from the last ice age carved out a channel between the islands of Flat Holm and Steep Holm. Dramatic sea level rise gave us the shoreline we know today, but it is not static. With further climate change and sea level rise coming to the forefront of people's minds, now more than ever there is a need for joined-up thinking and co-operation between us all.

"When the bore comes, the stream does not swell by degrees, as at other times, but rolls in with a head... foaming and roaring as though it were enraged by the opposition which it encounters"

Thomas Harrel 1824



Where to see the bore

Stonebench, on the east side of the river, three and a half miles by road from Gloucester Cross. In some respects this is best avoided due to the lanes becoming choked with vehicles of hopeful viewers.

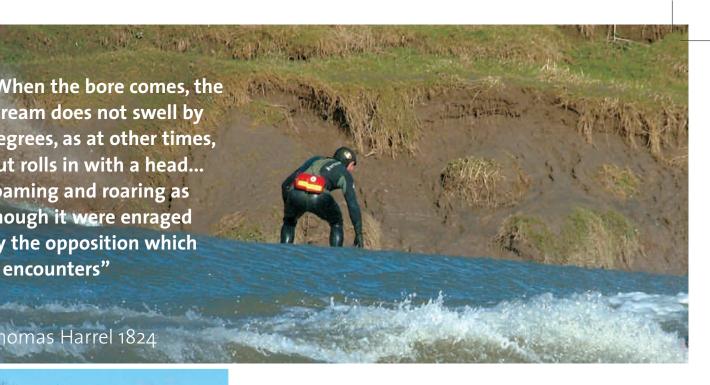
Minsterworth, on the western bank, where parking is much easier, there being direct river access at the Severn Bore Inn.

Overbridge, also a good spectacle but it is slightly obscured by the railway bridge.

Visit the Environment Agency website and search for 'Severn Bore' to find out further times. www.environment-agency.gov.uk

Other websites about the bore: www.severn-bore.co.uk www.tidal-bore.tripod.com

Thanks to Gloucester Harbour Trustees for assistance with the photorgraphs



Facts and figures to bore your friends

- on about 25 days, morning and evening.
- 9.5 metres at Sharpness.
- The largest recorded bore was on 15 Oct 1966 of 9¹/4 ft (2.8 m).
- Awre to Gloucester
- but are biggest near an equinox. Spring Equinox: February-March-April Autumnal Equinox: August-September-October
- Maximum bores occur one to three days after new and full moons

Bore made EARLIER by Strong west to south-west winds Up to 15 metres of freshwater

Low pressure

The Wild Bore

• There are about 260 bores a year, with large bores

• Bores occur at all spring tides of 8 metres or over (at Sharpness). Large bores occur with tides over

downstream of Stonebench and attained a height

• The main visible bore travels 33.8 kilometres -

• The bore can reach speeds of up to 21 kilometres per hour!

• Bores occur all the year round with spring tides,



Bore made LATER by

Strong north to east winds Absence of freshwater **High Pressure**

Bore height DECREASED by Strong north to east winds Absence of freshwater or too much freshwater High pressure

Explore the Severn

by Jim Mitchell, Access and Interpretation Officer

Changing views on the Quantocks coast - Kilve and East Quantoxhead

This varied walk combines spectacular coastal views with fascinating geology and intriguing history. This circular walk allows views of the Severn Estuary and the Quantock Hills. The area was designated as England's first Area of Outstanding Natural Beauty (AONB), and is 50 years old next year, as I found out from Tim Russell, Senior Ranger with the AONB Service.

Time: 1 hour 30 mins

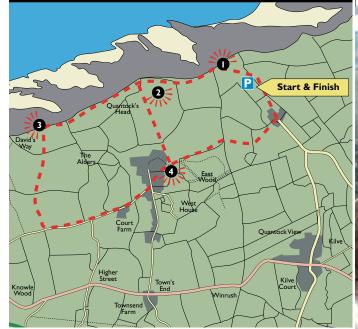
Distance: 3.5 miles

Terrain: gently sloping hills, steps to get down to the shore, rough underfoot in some places. Beware of cliffs and always check tides when on the beach. Public Transport: www.traveline.org.uk Tel: 0870 608 2 608

OS Explorer 140 'Quantock Hills and Bridgewater'

'What really gets me about this walk', Tim enthusiastically told me, 'is the stunning viewpoints packed into just a few miles. There's something for everyone - whatever your point of view! And of course there are the cream teas at the Chantry Tea Rooms!' Tim picked out four places to stop on the walk and admire the scenery.





View 1: The Severn Estuary.

'Here the whole estuary is laid out before you. Steep Holm, Flat Holm, and Brean Down, and on clear days in winter, the Brecon Beacons lying under a blanket of snow. Fantastic! Along this coast the cliffs are layered with oil-bearing shale and limestone embedded with fossils such as ammonites, a whole six mile stretch is designated as a Geological SSSI'

View 2: An Historic Estate

'Looking south, the view is of East Quantoxhead Estate owned by the Luttrell family since 1232. The 16th Century Court House sits majestically beneath the Quantock hills with their particularly important maritime heath. This scene hasn't changed for a long while - it's like looking back in time'.

View 3: West to Exmoor

'Looking west here we can see Hurlstone point', (the edge of the Severn Estuary Partnerhsip Boundary- Ed) 'and the highest point in Somerset – Dunkery Beacon, at 1704ft in Exmoor National Park'.

View 4: East Ouantoxhead

'Just in from the coast we have this quintessential English village. The mill pond still has the cobbles where carts were driven in to cool the horses down after ploughing and swell the cart wheel wood. You can see fossils amongst the stones in the walls of the thatched cottages, they've been built using local stone from the beach.'

The walk ended with cream tea at the Tea rooms, close to the car park at Kilve. The Chantry itself is in a ruined state, propped up by a huge frame. Established in 1329 as a Manor, it is of great archaeological importance. 'We've been developing the coast for walkers' said Tim over a cup of tea, 'we have a new footpath, called the West Somerset Coast Path, which links the end of the South West Coast Path with the Parrett trail. This should further help visitors enjoy this spectacular stretch of coast'.

For more information and a walk guide contact: Quantock Hills AONB Service, Castle Street, Nether Stowey, Bridgewater, Somerset TA5 1LN

Email: quantockhills@somerset.gov.uk www.quantockhills.com



Grand Opening of Lydney Dock

On 23rd July 2005 the town of Lydney turned out to see the opening of the restored Lydney Dock. Boats from around the estuary travelled to Lydney and entered through the new dock gates for the first time. Hopes are high that the success of restoration will be followed by increased use of the dock by pleasure craft and sailing yachts.

In 1998 the Lydney Dock Partnership was set up to reclaim the docks for local use. The Environment Agency, who own the dock, have been instrumental in realising the 1 million HLF funded project. Rob Millar, External Relations Officer for the Agency's Lower Severn Region, said, 'It's fantastic to see so many people out here today. Today marks the end of the beginning of this stage in the life of Lydney Docks. We hope that this will act as a catalyst for further regeneration, and as a symbol of the potential that exists in Lydney to continue to become a thriving economy once again and a place to visit, a place to enjoy and a place to be proud of '.





Severn Estuary Partnership help fund footpath link

The Severn Estuary Partnership, along with the Forest of Dean District Council, have funded the first section of the new footpath from the estuary to Lydney town, which was also opened on the 23rd. The footpath runs along the old railway track by the upper section of the dock. Obstructions have been removed and the surface made suitable for wheelchairs. Funding was obtained as part of the COASTATLANTIC project, via the European Union's Interreg programme. The next stage is to link the end of the Dock footpath with the Town. The Lydney Town Partnership are currently looking at further grant funding to aid this. For more information about the dock visit the Environment

COREPOINT Launch on the Severn

The UK launch of the European COREPOINT Project took place on July 6th at the Norwegian Church Arts Centre, Cardiff Bay. **Opening the event, Welsh Assembly Member Christine Gwyther** stressed the importance of Integrated Coastal Zone Management and cooperation amongst all those involved in sustainable use and development of the estuary.

The launch was well attended by a range of representatives from the Environment Agency regions, regional and local government, Welsh and English conservation agencies, port authorities and academic institutions. Following the launch, an expert surgery and ICZM training course went ahead for Severn Estuary Partners. COREPOINT is a 4.2 million EURO Interreg Project, led locally by Cardiff University, with 12 partners from Ireland, UK, France, Netherlands and Belgium. It aims to promote Integrated Coastal Zone Management across North West Europe, and locally deliver solutions to common problems.

For more information please contact – Rhoda Ballinger, ballingerrc@Cardiff.ac.uk or the Partnership Office.

Following the launch, visitors engaged in a spot of water sports on the enclosed dock, including canoeing and coracle rowing. Many also took the time to wander up onto the old railway line, now refurbished with a new footpath, sculptures, and picnic areas, from where there is a lovely panoramic view of the estuary.

Agency's Website – www.environment-agency.gov.uk and search for 'Lydney Dock'.

Severn Bridges The Second Severn Crossing

Over the next few issues we are highlighting some of the many bridges across and around the Severn Estuary. Here we look at the mighty Second Severn Crossing.

The second Severn bridge provides for many people their first, and possibly only, view of the Seven Estuary- caught as they zoom along the M4 between England and Wales. The bridge represents a link between England and Wales, and in many ways binds the two countries together. Many commuters now pass either way every day, in a way not possible previously due to the time it took to cross on the first Severn Crossing.

The huge steel and concrete span is constructed on the English Stones, one of the few areas where the sea bed is rocky and will support such a structure. The large tidal range exerted a big influence on the construction work. Timing was crucial in operations such as floating out and raising sections of the bridge. The bridge has high baffles on each side to deflect the wind, greatly reducing the danger to vehicles. So far, the bridge has never been completely closed due to high winds.

The bridge has also become a draw for artists, who find the way that the different estuary light plays across its structure offers excellent painting and photography.

To find out more – The Severn Bridge Visitor Centre near the eastern end of the bridge offers video films, pictures, models, and descriptions of past and present crossings and local history. It is a good idea to telephone the centre before making a visit, to make sure that it is open (01454 633511).



THE SECOND SEVERN BRIDGE

Collect your Severn Bridge Top Trumps!





Severn's Shifting shoreline - Can you help?

Do you know how the shoreline of the Severn as changed? Do you have bathymetric data n any area of the Severn? ...or do you know omeone who does?

inding historic data and knowledge about help to identify trends in shoreline change.

News in Brief... Estuary Round-up



In June of this year the Severn Estuary Partnership team was joined by Natasha Barker, as the new Partnership Officer. This is a natural progression from her work for Devon estuaries where she established the Teign Estuary Partnership and also co-ordinated the work of the Exe Estuary Partnership. Her experience in working closely with local authorities, statutory agencies and the community is combined with consultancy work in coastal and estuary management, ranging from Environmental Impact Assessment projects, flood and coastal defence studies to estuary management, plan development and coastal management training in the UK, Europe and Black Sea countries. Natasha is keen to get to know the estuary well, and welcomes a call from anyone wishing to share their knowledge and views on the future of the estuary and role of the Partnership. Contact – 02920 874713 or 07775 510362. Email – severn@cf.ac.uk

ASERA update

Members are currently reporting on the progress of their actions in the management scheme (September 2004) and continue to take the nature conservation interests of the Severn Estuary into account in relation to the management of ongoing activities. ASERA will be producing a leaflet this autumn on the features of the Severn Estuary Special Protection Area and how the public can best help to ensure its continued value as a nature conservation resource. Contact Steve Knowles – 02920 879111. Email – knowless@cf.ac.uk Coastatlantic Updates Severn communications

The Severn Estuary Partnership is launching a **new website** alongside this new newsletter this Autumn. It's part of an exciting programme of work to engage with people around the estuary to a greater degree. Six interpretation panels and two leaflets are also being produced on various locations around the 'Dynamic Severn', including Severn Beach and Goldcliff. Contact – Jim Mitchell 02920 879111. Email – mitchellj1@cf.ac.uk

Access Forum discusses new access powers

The Severn Estuary Wide Access Forum met in August to discuss access to the coast, and possibilities of improving access under the Countryside and Rights of Way Act 2000 and in other ways. Richard Ninnes from the Countryside Council of Wales presented to the group and a presentation by the Countryside Agency was also shown, with results of preliminary studies in England. Contact – Jim Mitchell 02920 879111. Email – mitchellj1@cf.ac.uk

GIS forum

The Severn Estuary Geographic Information Systems (GIS) Forum has been successful in producing a Memorandum of Understanding between many of the spatial data holders around the estuary. The forum aims to improve the current lack of coordination and harmonisation of GIS data to aid spatial planning around the Severn Estuary. The Forum has produced a database of all the major spatial datasets relevant to the Severn Estuary, currently held by the Severn Estuary Partnership. They have also helped produce a GIS for the Severn Estuary European Marine Site, displaying nature conservation and recreation/access data. This will be available to all statutory bodies and interested user groups this winter. Contact Steve Knowles 02920 879111. Email – knowless@cf.ac.uk

Natural Heritage

The Severn Estuary Partnership are producing guidance notes for development on and around the Severn Estuary, in light of it's designation as a Site of Special Scientific Importance (SSSI) and as a European Marine Site. The notes have been designed to help planners, Councillors and developers consider and approve sustainable development on the estuary, in the context of it's national and international nature conservation designations. The guidance notes will be available this winter. Contact Steve Knowles 02920 879111. Email – knowless@cf.ac.uk





'Working in partnership can achieve much more'

The Spirit of Partnership

In the Spirit of Partnership will you sign up?

The Severn Estuary Partnership is inviting organisations interested in the future of the Severn Estuary to sign up to a **Partnership Agreement**. Since the mid 1990s over 200 organisations have come together to support the Severn **Estuary Strategy**. Now it is hoped that many will sign up to this voluntary statement of co-operation to help strengthen the Partnership.

The Partnership continues to provide a wide range of co-ordination services for estuary-related interest groups from providing news, information and contacts, to convening meetings and carrying out project work with partners.

A new **Business Plan** will be launched in Spring 2006 to highlight the benefits of involvement in the Partnership.

Local authorities, statutory agencies, port and harbour authorities, charities and voluntary interest groups are being invited to sign up to the agreement. If you are interested in obtaining a copy of the Agreement please contact the Partnership Officer, Natasha Barker 029208 74713 Email - severn@cf.ac.uk

Steep Holm is where the heart is

The size and dynamic nature of the Severn make it difficult to explore sometimes – but a boat trip to Steep Holm takes you to the heart of our mighty estuary.

From the top of the island, it's possible to see from the Devon hills to the Severn Bridges, Barry Island to the Black Mountains and from open sea to the inner estuary. Exploring this *Celtic Isle of the Severn Sea* is a special summer treat for anyone who has wondered about this rock on the horizon. A trip from Weston-Super Mare to Steep Holm really demonstrates the dynamic nature of the Severn - not least when fighting the tide for a hair-raising landing on the beach.

Steeped in history

There is plenty to see and do on Steep Holm, which is just as well, as visitors are trapped by the mighty tide for about 7 hours! Before tide and boat return, you can seek out Celtic carvings of a pagan shrine; an old Roman signal station; the twelfth century St Michael's Priory (under excavation); remains of military occupation; and the island's fascinating natural history, including seven species of plant unique to north-west Europe. You will be the latest in a long line of visitors and dwellers on the island, including the Celts, Romans, Vikings and a medieval community of Augustian Canons.

Severn sisters

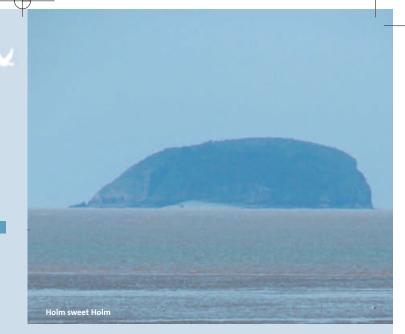
The grey carboniferous limestone rock is around 330 million years old, but the island of Steep Holm was formed at the end of the last ice age between 8000 and 10000 years ago. The open plains between England and Wales were flooded with meltwaters to form the Severn Estuary, leaving the islands of Steep Holm and its sister island Flat Holm (see Severn Tidings, Spring 2005). The ice-age river bed is now 1.5 miles north of Steep Holm at 72 feet below present sea level – a useful deep navigation channel for our modern commercial shipping.

Island in the sun

Steep Holm is usually about 5% warmer than the mainland of England or Wales during the day and 10% warmer by night. But don't rush to find your own way there to seek out the sun – the island is a privately owned nature reserve and access is only allowed by special permission or you can join a public boat trip from Weston-Super-Mare on the M.V. Bristol Queen.

The Severn Estuary Partnership School of Earth, Ocean and Planetary Sciences, Cardiff University, Main Building, Park Place, Cardiff CF10 3YE

Email: severn@cf.ac.uk www.severnestuarypartnership.org



Further information on visiting or getting involved with Steep Holm, please contact: Secretary – Mrs Joan Rendell, Kenneth Allsop Memorial Trust, Stone Dale, 11 Fairfield Close, Milton, Weston-Super-Mare, North Somerset BS22 8EA. Tel: 01934 632 307

Further reading:

Steep Holm's Pioneers Stan & Joan Rendell (2003) Steep Holm, The Story of a Small Island Stan and Joan Rendell (1993) Steep Holm Legends and History Rodney Legg (1993) Allsop Island Rodney Legg (1992)

Severn Events!

Archaeology of the Severn Estuary Conference: Saturday 29th October

The Severn Estuary and Levels Research Committee (SELRC) will hold its annual conference at Chepstow Drill Hall on 29th October 10am–4pm open to members and non-members. Entrance £10. Lectures include the Severn Tsunami of 1607 (as seen on TV), historic fishing structures in the estuary and a lost Somerset river rediscovered and lots more. Contact Richard Brunning at rbrunning@somerset.gov.uk or on 01823 355517 for more details.

World Wetlands Day:

Thursday 2nd February 2006

A walk to see over-wintering wildfowl at the Uskmouth Reedbeds. The walk should finish with the spectacle of thousands of starlings coming in to roost at dusk.

Leaders: Reserve Managers CCW Meet: Reserve car park, Uskmouth Time: 3.30pm – 5.30pm Contact: 01633 275 567.

The Severn Estuary Day!

Saturday June 10th 2006

Coming soon in 2006 – a day for everyone to celebrate our dynamic estuary. More details in the next edition of Severn Tidings.

Please contact the Severn Estuary Partnership if you would like to put notice of an event in our Spring 2006 edition of Severn Tidings.

