

Topic 1: Opening of Conference and Conservation issues of Jersey

This section includes the opening of the conference with the welcoming addresses by the Bailiff and the Minister of Health, as well as an introduction to Jersey's environment and conservation issues by a team from the Jersey-based organisations of the organising team. An integral part of that introduction was a walk on the seabed in Jersey's first Ramsar site. This was: to recover from travel; get to know other participants (a very worth-while approach on past experience); and a chance to see some of the most remarkable features of Jersey's biodiversity. Jersey is within the Baie du Mont St Michel, which has one of the highest tidal ranges in the world. The conference dates coincided with the most extreme tides for 4 years, allowing a range of walks along the sea-bed at low-water – in particular a 3-hour, 3-mile journey across one of the most unusual intertidal habitats on the planet. With each low tide, the Bailiwick of Jersey doubles in size. Our guided walk across part of "the other half of the Crown Dependency" was led by marine biologist and "professional walker", Andrew Syvret – one of the most experienced guides to this area – and his team of skilled volunteers. The south-east coast of the Island forms the last vestiges of Great Britain's land-bridge to continental Europe. Of great cultural and historical significance to Jersey-folk, this area was designated as the Channel Island's first Ramsar site in 2000. It is home to an astonishing variety of life, site of a French invasion and once upon a time proposed location for an international airport. Participants were fascinated by boulder-fields, oyster-farms, lagoons, wave-cut platforms, sand banks and saltwater-filled gullies on the way to and from two of Jersey's most interesting coastal defence towers. On this page are illustrated some of the images of that day.



Introduction to the Conference by the Chairman of the UK Overseas Territories Conservation Forum

Dr Mike Pienkowski

Good evening, everyone. For those who do not know me, my name is Mike Pienkowski, and I am the Chairman of the UK Overseas Territories Conservation Forum.

In a few moments, I will ask the Bailiff of Jersey, Sir Philip Bailhache, to start off our conference. First, however, let me say a few words of background.

The conference is being organized by the UK Overseas Territories Conservation Forum in consultation with our partners in Jersey, both governmental and non-governmental. It is supported by: The Overseas Territories Environment Programme (OTEP) of the UK Foreign and Commonwealth Office and Department for International Development; UK Overseas Territories Conservation Forum; The Environmental Department of the States of Jersey; The Société Jersiaise; The National Trust for Jersey The Durrell Wildlife Conservation Trust; IAIA (International Association for Impact Assessment) 'Capacity Building for Biodiversity and Impact Assessment Project' (CBBIA), funded by the Dutch Government; Royal Society for the Protection of Birds; and the Commonwealth Foundation - as well, of course, as all participants and, where appropriate, their organisations. Thanks to all.

This is the fourth conference to centre on nature conservation in the UK Overseas Territories, with increasingly strong links also to the Crown Dependencies, the Overseas Countries and Territories of other European Union Member States, and to small independent states.

Some people may consider these small countries and territories as a little peripheral. However, in terms of nature, the UK Overseas Territories are far more important in global terms than the larger islands of Great Britain and Northern Ireland.

The first conference to be held was in 1999 in

London, organised primarily by the Foreign & Commonwealth Office, but with strong help from UKOTCF. I have to add quickly, in deference to our friends for Gibraltar, that the first to be planned was the *Calpe 2000* conference held in Gibraltar in 2000, and organised jointly by UKOTCF and partners in Gibraltar Government and Gibraltar Ornithological & Natural History Society. These were followed by the Bermuda conference *A Sense of Direction* in 2003.

These have all been working conferences. This means that we need to limit the number of topics covered to allow reasonable depth of coverage in each. The actual choice of topics was based on a wide consultation amongst practitioners in the Territories and others with an interest. In order to allow preparations, this consultation was conducted in the early planning stage quite a while ago. Inevitably, we have not been able to address some topics that many would have liked. In some cases, such as climate change issues, these were a major topic at the previous conference. This and other topics will doubtless come into discussion in some of the other sessions, as topics are inter-linked.

I am delighted to say that we do have representation, for at least some of the conference from: all 5 (or 3, depending on how one counts them) Crown Dependencies; all of the inhabited UK Overseas Territories, except the Pitcairn Islands, and Pitcairn have asked the person leading on their environment charter strategic plan to represent them, jointly with UK government colleagues. For each of the uninhabited UK Overseas Territories, there is (or will be) someone at the conference either to represent them or who studies in the territory concerned.

As in our previous conferences, we welcome also personnel from the French and Netherlands overseas territories. We are developing a well integrated alliance with the equivalent bodies to UKOTCF in those countries, to assist promoting these important issues in the European Union institutions. As ever, we welcome the presence of small independent states, to give us a different viewpoint. In

fact, I am pleased to say that, in addition to the 21 UK territories, there are at least 15 countries due to be represented at this conference.

We always try to innovate at these conferences, and there are several new features that we are trying out this time. I will not mention them all, but I would like to draw attention to the participation of several senior school and college students throughout the conference, mainly from tomorrow. They have won their supported places by their efforts, and we look forward to their views and questions, so relevant to the future, to keep us on our toes.

We are very grateful to Jersey for the invitation and hospitality. We look forward very much to hearing tomorrow more about the island and its environmental issues – as well as seeing for ourselves as we take a walk on the seabed exploring the huge tidal range which is one of Jersey’s most spectacular features.

For the first time, the conference is being held in a Crown Dependency, rather than an Overseas Terri-

tory. I am sometimes asked what is the difference between a Crown Dependency and an Overseas Territory. I am not going to dare to try to answer that with a distinguished lawyer and leader of the community standing beside me. However, I do recall the alleged answer of a British Government official when stumped by this question: that, in order to be a Crown Dependency, one has to invade and conquer at least part of Great Britain. I suspect that this is not the constitutional answer. However, Jersey has been linked to Britain since it was part of the Dukedom of Normandy, and its Duke William became William the Conqueror. So, there is at least some basis of the claim that I have heard from more than one Jerseyman that the United Kingdom is, in fact, an Overseas Territory of Jersey (and of the other Channel Islands – but Jersey does not usually claim things on their behalf too)!

Before I dig myself deeper into an historical mire, I would like to stop and have the great honour and pleasure of handing over to Sir Philip to open our conference.



The Bailiff of Jersey, Sir Philip Bailhache DHumL, MP (left) and UKOTCF Chairman, Dr Mike Pienkowski

Opening of the Conference

Sir Philip Bailhache, Bailiff of Jersey

Chairman and members of the Executive Council, visiting delegates, ladies and gentlemen,

It is a great honour for me to welcome you all to the Bailiwick for the 2006 Conference of the United Kingdom Overseas Territories Conservation Forum. It is, I believe, the fourth occasion on which like minded representatives from U.K. Overseas Territories, Crown Dependencies and other small islands have come together to share experiences, thoughts and exchange ideas that seek to protect our rich and colourful biodiversities against the social and economic pressures of the 21st century.

Delighted as I am that you have chosen to meet in Jersey, it is of course neither part of the United Kingdom nor an Overseas Territory, so may I first of all tell you a little bit about our constitutional history? The past, I think, is not irrelevant to the purposes of your forum. A community that is proud of its history and its traditions is likely to be a community which relates to its natural environment and which feels protective about the best elements of its architectural heritage. I think that I also speak for the silent majority when I say that there are elements of our architectural heritage created in the 1960s and 70s, and even later, which make us pray earnestly for a selective tornado or tropical hurricane such as some of you have occasionally to endure.

Our recent history starts in 1066. In that year William, Duke of Normandy, crossed the Channel and defeated King Harold at Hastings. Numbers of Jerseymen and Guernseymen were undoubtedly in that invading force and we sometimes like to tease our English friends by reminding them that England was the Channel Islands' first colony. In 1204 the Norman duke and English King, John, lost continental Normandy to the French King Philippe Auguste, and the Channel Islanders found themselves alone in a hostile sea, cut off from Caen and Rouen which were their cultural and administrative capitals respectively. King John offered our predecessors a number of constitutional privileges, including Royal protection and the privilege of self-government according to our own laws, in exchange for loyalty to the Crown. The great medieval castle, Mont Orgueil, was built at Gorey

and Jersey's autonomy was born. Jersey has always been loyal to the Crown, even during the English civil war, and our constitutional relationship is accordingly with the Sovereign; that is why we are a Crown dependency and not an overseas territory of the United Kingdom.

The Island's Norman heritage endures in our language, *Jerriais*, in our law which is still in part based upon Norman customary law, in various traditions, and of course in the vernacular architecture which uses our native granite in a way that respects the natural laws of symmetry and proportion.

I described our recent history as beginning in 1066, slightly tongue in cheek, because we do have some Neolithic sites and burial chambers of European importance dating back 6,000 years or more. At that time we were of course literally attached to Normandy. For a small place there is much of interest ranging from dramatic castles and forts constructed many centuries ago, coastal areas of sand dunes, cliffs and beaches, the last subject to a huge tidal flow which rises and falls by more than 40 feet during the equinoxes and increases the size of the Island by no less than 40% at low tide.

Jersey has shown, I believe, considerable commitment to the need to protect its heritage and environment, and to cherish its biodiversity. Member organisations of the Conservation Forum found in Jersey include the National Trust for Jersey and the *Société Jersiaise* which seek to conserve everything good about Jersey's natural environment encompassing a rich variety of woodland, farmland, heath land, meadows and wetland. From the dramatic system of sand dunes located on the west coast of the Island to the rocky marine coast in the east protected under the Ramsar Convention on Wetlands, the Bailiwick has, like many other small island communities, recognised the benefits to the local population and visitors alike of having well managed conservation areas that will be enjoyed for generations to come.

There is, perhaps, no better model in Jersey of an international conservation organisation than Durrell Wildlife Preservation Trust which is committed to preserving the future of endangered species worldwide. An important part of Durrell's work is

raising awareness and educating the next generation on the importance of conservation, wildlife preservation and the environment. The need to raise awareness and to educate is a matter that will, no doubt, be considered during your conference and may form the foundation for future conservation strategies. I am sure that we all subscribe to the view that there is an urgent need to promote the co-ordinated conservation of threatened plant and animal species and their natural habitats.

I know that I speak for all those delegates from Jersey attending this conference when I say how much we appreciate the opportunity to learn and to benefit from the expertise assembled from so many other places, but particularly the United Kingdom. Small places like Jersey and many others represented here have an incredible diversity of fascinating flora, fauna and important eco-systems which may enrich the experience of experts from

the UK [and France]. Small jurisdictions like ours, however, cannot provide the breadth and depth of research and knowledge which is available in larger countries. One of the great strengths of conferences such as these is the opportunity it affords to exchange views, experiences and opinions, and to promote the development of shared objectives and common policies which underpin the work of the U.K. Overseas Territories Conservation Forum.

Your agenda for the week will, no doubt, be a demanding one, but I hope that your conference will be fruitful and rewarding, and that your discussions take place in an atmosphere of relaxation and mutual respect. I hope too that you may find the time to explore at least part of the Bailiwick and to discover many of the natural delights which we, I am afraid, too often take for granted. I welcome you all most warmly to Jersey.



The Bailiff meets the team from Gibraltar: Charles Perez, Dr Eric Shaw and Dr John Cortes.

Welcoming Address on behalf of the Government of Jersey

Senator Stuart Syvret, Minister for Health and Social Services



Mr Chairman, Colleagues, distinguished Guests, delegates, ladies and gentlemen.

I am very pleased to have this opportunity to welcome you all on behalf of the government and people of Jersey. I know that many of you will have made very long journeys to be at this conference, the first of its type ever held in Jersey, and I am confident that you will receive a warm welcome.

Much as ecosystems are complex networks of interdependencies so too are the affairs of humans. Just as we cannot truly know a species until we look at it within the context of its ecosystem, we cannot make sense of our impact upon the rest of nature unless we understand the complex drives of human society.

I have been a keen environmentalist since I was a teenager. To this day I still work with Greenpeace. During campaigns, we sometimes talk about whether we are succeeding in making a difference. We always agree that just being concerned with only the environment simply isn't enough. For example, habitat destruction will not be stopped until we understand – and address - the needs of people. Can we criticise the starving peasant who fells some rainforest so that he may feed his family? Should we blame the poor of the world's slums for polluting their rivers? No. To have any

chance of enabling people to live sustainably, we must change society so that the basic needs of all of the world's people are met. Tom Athanasiou, in his 1997 book *Slow Reckoning*, said that history will judge the green movement by how it stands by the world's poor. Not only is Athanasiou correct by any respectable ethical or moral standard – he is correct from a utilitarian perspective. No matter how scientifically brilliant a study of those plants, these fishes or those lizards might be, the effort put in will count for nought unless we can assuage the basic needs of human society. Studying the butterfly will not stop its habitat being destroyed by development. To have any chance of making a difference we need to understand human needs, economics, the media, politics, societies – and human history.

It is surely clear that the great challenge that lies before us is to recognise the limits of our exploitation of the planet. As a species, we will either succeed in this or perish - and take much of the biosphere with us.

Many of you will be from island communities in which the fishing industry is a principal part of your economy. Yet we all know that the fish stocks of all the world's oceans are under great threat. Indeed, the evidence shows that many fisheries are hurtling towards catastrophic collapse. This can be no surprise to us. Experts – such as yourselves – have been warning us of this crisis for decades. Every few years scientists produce another major study warning of disaster for European fish stocks – the evidence gets ever starker. And still politicians do nothing; more concerned at negative media comment from trawler men than with the inevitable ecological and economic disaster. It seems likely that we will not stop fishing until there is nothing left to catch.

Jersey has many great environments and beautiful locations. But as beautiful as much of Jersey is, we too are failing in many of the most important ways. Every year more fields disappear under housing developments. We consume more products and produce more rubbish. The traffic jams get worse. Indeed, motor transport is a particularly telling example. Only a couple of days ago, my Ministerial colleagues and I received a presentation of plans

for the improvement and regeneration of St. Helier. A key feature of the proposals is the spending of many tens of millions of pounds on the building of new roads and car parks. It seems to matter nothing that energy consumption is causing rapid climate change that may threaten human survival; nor that the world has passed peak oil production at the same time as demand from developing economies begins to catch up with the profligacy of the west. The highly likely consequence is that cheap motoring will be an historical artefact within 20 years. Yet, these considerations may as well not exist as far as the short-term imperatives of politicians and planners are concerned. And this is just one example of our societal inability to think in the long-term. The conference you are participating in is one of the means which might help improve our knowledge of the impacts we have on small island environments.

I hope that your presence in Jersey might help us to start making the right decisions.

Before you embark on the busy conference programme you will be taking a walk at low tide in our Ramsar site on the South East Coast. The conference happily coincides with one of the largest tides in recent years. Few places on earth have such an expanse of rocky seabed exposed by the tides. It is a richly diverse habitat. You will also be visiting the Country Life Museum at Hamptonne from which you can learn of the agricultural history of the Island; a history in which our culture has its roots. No visit to Jersey can be complete without experiencing Durrell, which is the headquarters of the Durrell Wildlife Conservation Trust. From these experiences I hope you will see why we have a deep bond with our small Island.

I must thank the organisers of this conference for making places available to students from local schools. Education must be one of our great hopes if we are to help future generations – and ourselves – to be aware of the complex web of sociology, economics, politics and ecology upon which saving the planet depends. Perhaps it is so, that in small islands we might see the needs more pressingly.

I would like to thank our local partner organisations in the Island, particularly Société Jersiaise, Durrell and the National Trust for Jersey, who have worked with the Environment department to help make this conference happen.

At this time of year many of our birds have flown

south to such places as the Okavango delta, whilst other birds arrive from Russia to spend the winter here. Many of you will have likewise traversed the great geographies to get to Jersey. Whilst your efforts will not have perhaps been as great as that of the swallow or the swan, I'm sure you had a tiring journey to be with us. I hope your time here is both enjoyable and productive. Let us hope that our knowledge is shared and our understanding improved. Only by human co-operation can we succeed.

Thank you.

Jersey: Environmental Challenges and Achievements

Mike Freeman, Principal Ecologist States of Jersey, Environment Department



Freeman, M. 2007. Jersey: Environmental Challenges and Achievements. pp 28-37 in *Biodiversity That Matters: a conference on conservation in UK Overseas Territories and other small island communities, Jersey 6th to 12th October 2006* (ed. M. Pienkowski). UK Overseas Territories Conservation Forum, www.ukotcf.org

A brief history of conservation work in Jersey over the last 26 years, including the work on the Conservation of Wildlife (Jersey) Law 2000, the Biodiversity Strategy of 2000 and the Biodiversity Action Plans, published in July this year. Policy development, political involvement, Multilateral Environmental Agreements and awareness raising in Jersey are covered.

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Before I start, I would just like to say how pleased I am personally to welcome you all to Jersey. I hope you enjoy your time here. Today I am going to talk mainly about how things have developed in the last six years.

Historical Perspective

But first I want to put the challenges and achievements in some sort of historical perspective. A Jersey government department devoted to environmental issues has existed since 1979, albeit that for the first 15 years the section was only two full time staff.

It is important to remember that Jersey is very fortunate to have had a very high standard of works on natural history. The work of the Société Jersiaise laid firm foundations for all the work that has been done since, and members continue to provide surveys and studies which contribute greatly to our progress.

We have benefited greatly from our connections with universities in the UK. University College London's MSc in conservation studies helped us immensely in carrying out work which consolidated and advanced many areas of study. Without their work we would have not for instance been able to complete the species action plans which I will talk about in a minute.

Our workforce in those days was entirely made up by students from UK and French universities, whose work ranged from education through practical management tasks to surveys and studies.

In the late 1970s most of the island's rubbish was dumped on the west coast. Sand had been dug and the holes were then filled with the rubbish. It was



Sand-pits and some filled with rubbish, La Mielle de Morville in the 1980s

clear that the final landform would not, to say the least, demonstrate a sensitive approach to landscape restoration, and it was decided to plan the restoration taking into account a range of factors – what we would recognise now as a sustainable approach.

I joined the department as a part-time gardener in 1980 and my task, with the help of volunteers and students, to work with nature to restore the tips to a sort of dry coastal grassland habitat. The idea also was to use the site as a recreational area to take pressure off the sand dunes at the other end of the bay. The final results were very successful and the site is now well used.

Interestingly, the story of St Ouens Bay reflects how natural constraints can help to protect areas. In the 1950s there were plans for a housing estate in the bay, but apparently the high water-table and the fact that sewage would have to be pumped up out of the bay for treatment led to the plan being abandoned. Technological advance and increasing land values make natural constraints less of an impediment to development now, but we now have robust statutory measures in place which should provide protection for our valuable semi-natural habitats

Our work was, for the next 20 years, directed mainly in two areas.

The first was education and awareness-raising. Hand-in-hand with that we gradually extended our management and survey activities across the Island. Often our contribution to wider debates about the environment was greeted less than enthusiastically. I can remember receiving an early effort on an environmental impact assessment which read, in its entirety “there is no environment in this area”

So the St Ouens Bay restoration plan was important because it demonstrated that an environmentally aware approach to landscape restoration achieved excellent results for a comparatively low



Restoration complete at St Ouens Bay

cost. It also demonstrated the value of holistic planning approach.

These insights fed into the work that led to the 1986 Island Plan.

It took a long time, but in 1996 we designated our first sites of special interest, and in 2000 the Conservation of Wildlife (Jersey) Law was adopted. In the same year our first Ramsar site (on the south-east coast which we will be visiting) was designated, and the Biodiversity Strategy, which I spoke about at the Gibraltar Conference that year, was adopted. Thus species were protected by the wildlife law, and habitats designated through the Planning Law

At the end of the 1990s we reviewed the success of the St Ouen’s Bay plan, largely through reviewing the experience of 20 years of management from a landscape perspective. In the light of that review, we made policy recommendations as part of the work for the new Island plan, which was also based on an Island-wide landscape character appraisal.

Throughout the period 1980 to 2000, we encouraged our government to seek from the UK ratification on our behalf of many multilateral environmental agreements. The Convention on Biological Diversity, the Ramsar Convention on Wetlands, the Convention on Migratory Species and others have all been very useful to us . The first Ramsar designation was very controversial; yet the second set were greeted with enthusiasm, and my colleagues

in fisheries enforcement confirm that fishermen now are proud that the areas they work in and love are internationally recognised.

The *State of Jersey* document and the Pressure - State - Response Framework

More organisational change at the beginning of the new century led to our section merging with others to form a department with responsibilities for more than biodiversity conservation. The Environment Department now has regulatory responsibilities which cover a range of environmental areas covering land, freshwater and marine. The process is still in a formative stage, but it is clearly the best way forward because, as we know, everything relates to the environment, and this strategy brings the issues into a coherent whole

The *State of Jersey Report* was produced to provide the basis for the work of the new department. I am now going to outline the process we followed, including the pressure-state-response framework we used.

Introduction

There are many ways to look at and categorise the environment. We adapted the old “think global, act local” approach.

No island is an island; changes in climate, economic conditions and societal pressures have effects on everything. In this global space we look at the factors in our immediate geographical area, determination of rarity in our biodiversity, local climate and economic influence.

As we zoom in on the Island we begin to focus on the detail and the landscape whence we derive our strategies and, as finally we look through the smallest window, we can see right down to the level of the individual inhabitant of the Island be that ourselves or the creatures we share it with.

There were 4 phases used in the development of the document.

The first stage involved identifying twelve environmental perspectives using the ‘global to personal’ approach I have just described, and I would like to take you through these 12 perspectives in turn

The global scale

There is increasing evidence that man-made

emissions are accelerating global climate change. Locally, this will affect sea defences, water resource availability, disrupt ecosystems and alter conditions for agriculture and potentially human health. We also look at controls on trade in globally endangered species

At this scale we also must consider Jersey’s contribution to global biodiversity. Jersey’s geographical position makes it an important refuge for many migratory species such as migratory birds, bats, fish and marine mammals

As we come closer to the Island we can see the familiar landscape and character of Jersey as a fine scale mosaic of suburban, agricultural and semi-natural habitats.

Land

Changes in land-use can impact upon the areas available for growing food, for recreation and through the loss or alteration of semi-natural habitat can affect natural processes. It is here that the major local challenge arises: how to balance requirements for development with preserving semi-natural habitats.

Fortunately for Jersey, contaminated land is not widespread, but there are nasty little secrets lurking about which need attention when development is proposed. The use of land can be restricted by contamination, which can create direct risks to human health, property and the wider environment.

Water

The Island is reliant on its surface and ground waters for drinking water, irrigation, industry and recreation, as well as for sustaining a vital natural habitat. The appropriate management of this resource is, therefore, vital both for human and ecosystem health.

Our local marine habitat is exceptionally rich in species, and the water quality is generally considered high. However, there is still a threat, particularly from man-made sources of pollution. High-quality marine waters and beaches are vital in underpinning both tourism and the fisheries industry.

Waste

Jersey produces large quantities of waste per capita, and waste handling and disposal are a major challenge. Municipal solid waste production in Jersey has increased by 3% per annum in recent years

and the incinerator is getting old and dirty. With the proclaimed need for economic growth, there is the probability that waste will increase, and waste streams will be more complex and difficult to deal with.

The challenge is to reduce, re-use, recycle and develop more sustainable ways of dealing with what is left.

Habitats

At this scale we look at: the range of habitat types and their ecosystems in Jersey, and try to work out how they can be best looked after; management planning and protection from pollution; land-use planning which takes account of the need to preserve habitats and connectivity; and dealing with the effects of introduced species, some of which may change and possibly damage local ecosystems.

Jersey's countryside was largely formed and continues to be changed by agriculture. However, the agricultural industry is itself changing in the face of economic pressures. Managing the complexity of these changes is a further challenge.

Key Biological Populations

Jersey supports a richness and variety of wildlife that is not matched, area for area, anywhere in Europe. Our natural resources require a high level of protection to ensure their survival given the pressures that arise from human activities.

We may wish to conserve species or communities because they are rare, because they are economically valuable, or because they are good indicators of the quality of the places where they live.

Individual

Finally, at the individual scale we must look at how our surroundings affect our lives, and how the way we live affects our surroundings. If we are to manage our habitat in such a way that we can pass it on, preferably improved, to future generations, each of us has the opportunity to help by living in an environmentally responsible way in order to help maintain the Island's environment now and for the future.

Measuring Progress

So, there are the 12 environmental perspectives which gives us a starting point for examining the environment.

However this is just the first step; how are we to know if we are successfully addressing all the angles of these critical themes? Clearly we must measure our progress and this is where monitoring is essential.

Monitoring

Monitoring is about identifying changing trends and identifying when, and what sort of action is needed

It is essential if we are to have an informed basis for assessing the priorities of our actions, charting our progress, and planning effectively and efficiently for the future.

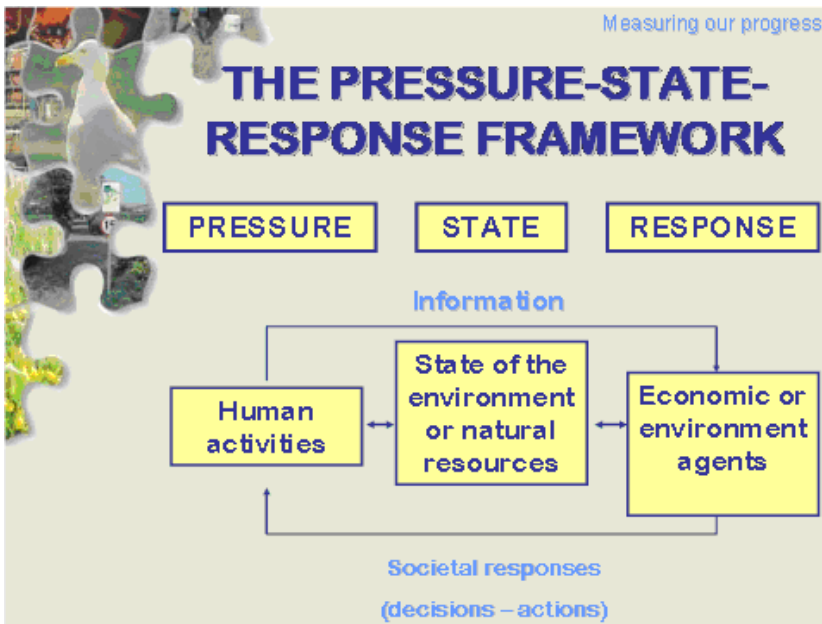
Of course, some monitoring has been carried out by governmental and non-governmental organizations for a long time. For instance, climate records collected at Maison St Louis stretch back over 100 years. As I mentioned earlier, the Société Jersiaise have been recording since the formation in 1873.

However, in order to monitor the state of the environment and changes in these conditions efficiently and economically, single issues or events are often used as indicators. Because environmental processes are often complex and inter-related so identifying the appropriate indicators can be difficult. However one framework to help us that has been used successfully elsewhere is the pressure-state-response framework. This involves looking at the **state** of our environment, what **pressures** cause it to be in that state, and working out how we can **respond**

In more detail (see diagram on next page) we can see that human activities exert **pressures** on the environment which can induce changes in its **state**. Society then **responds** to these changes through environmental, general economic and sectoral policies.

By carrying out monitoring within this framework we can, over time, assess whether our responses are having the desired effect. The *State of Jersey Report* signals the beginning of an **integrated** programme of work that aims to report on the State of our Environment.

The report itself is long and detailed, and the result of the kind and generous contribution of existing data sets and information from many Departments and Stakeholders. The report draws a line in the sand for us and points to the way forward.



Environment Department launched a monitoring programme that uses butterflies as indicators of the condition of different habitat types. With the necessary training, 18 dedicated volunteers were able to collect information on 28 sites Island-wide, and provide a level of coverage impossible to achieve through Governmental resources alone. This project follows procedures developed by a similar project in the UK, and Jersey's volunteers join hundreds across the UK who provide invaluable information nationally.

So to sum up so far, I have described to you how in the report

Monitoring 40 environmental indicators

But even with pledges to monitor and improve our environment, we can know if our responses are successful only by continuing to measure the state of our environment. To this end we have outlined a programme to monitor 40 environmental indicators into the long-term.

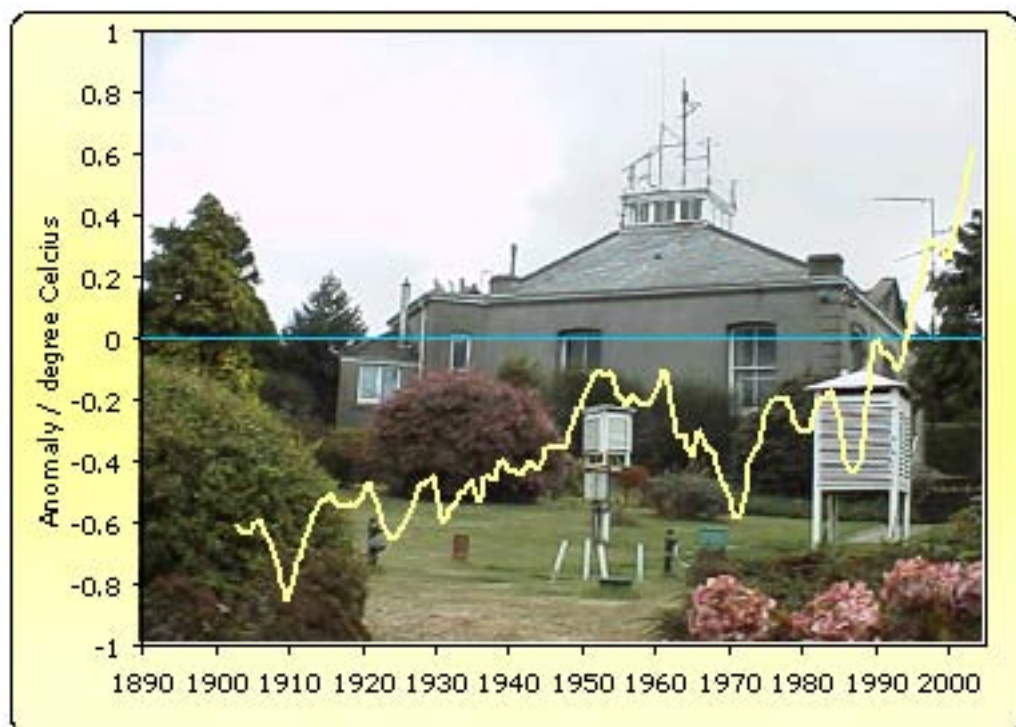
Importantly, often the data sets contributing to these indicators are already being collected so that we can simply report back on it in a more co-ordinated and accessible manner. Some indicators have required new or updated projects to collect the required information.

we categorised our local environment, examined the state of it, the pressures that have caused it to be that way, and looked at ways to respond to this. We have explained how and why we intend to monitor and report back to you using 40 key indicators. Although Jersey has a high quality of life sustained by a good quality environment, there is no room for complacency.

From the analysis of Jersey's environment, we have identified the five key environmental priorities. They are climate, waste, water, transport, countryside and natural history. I want to look at each issue in turn and consider the issues associ-

Clearly some subjects require specialist attention – for example monitoring air quality is carried out by the Health Protection Unit. Nevertheless there is room for us all to help. In creating projects to collect indicator data, we have looked to use community resources as much as possible.

For example, in 2004 the Envi-

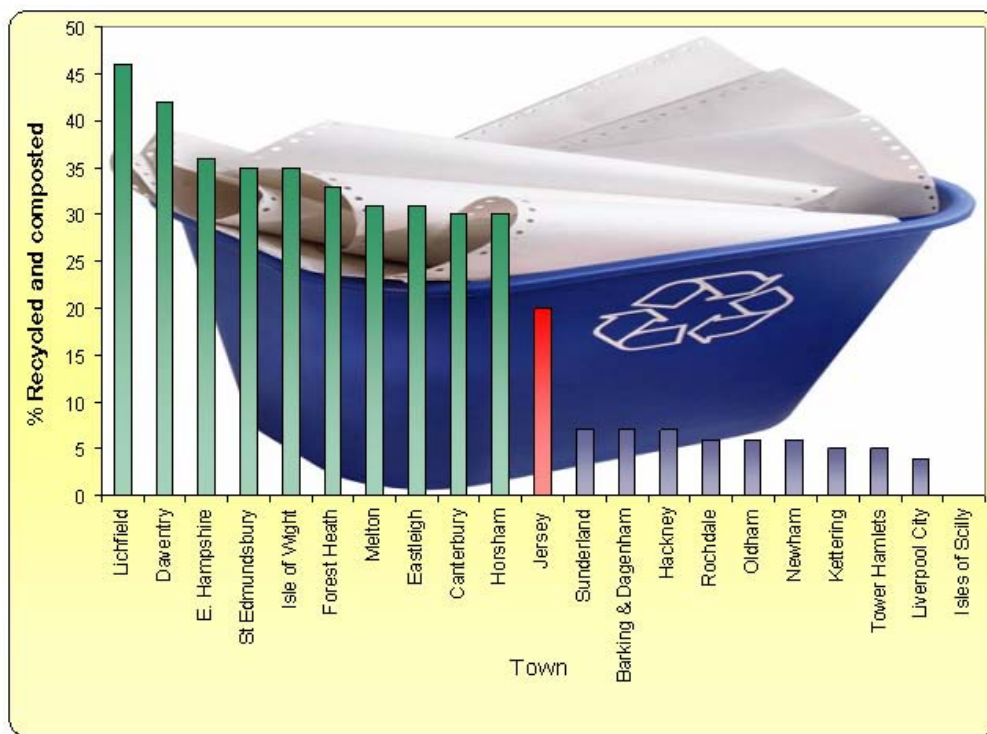


ated with that environmental priority.

Climate

Jersey has a high reliance on private cars for local transport, and a dependence on fossil fuels for industrial and domestic uses contributes to local emissions of greenhouse gases.

The graph here shows the measurable temperature rise since 1900 as recorded at Maison St Louis, St Helier.



This temperature increase is in line with that observed globally and is considered to be indicative of global climate change. A changed climate will bring major challenges for Jersey, drastically less summer rainfall, greater storminess and rising sea levels.

Waste

Excessive waste generation represents a misuse of resources and causes pollution. Jersey's municipal waste has risen by, on average, almost 3% for the last five years.

Emissions from our present incinerator fall well short of accepted standards. Furthermore our levels of recycling, whilst better than the UK, are not as good as have been shown possible in other European countries.

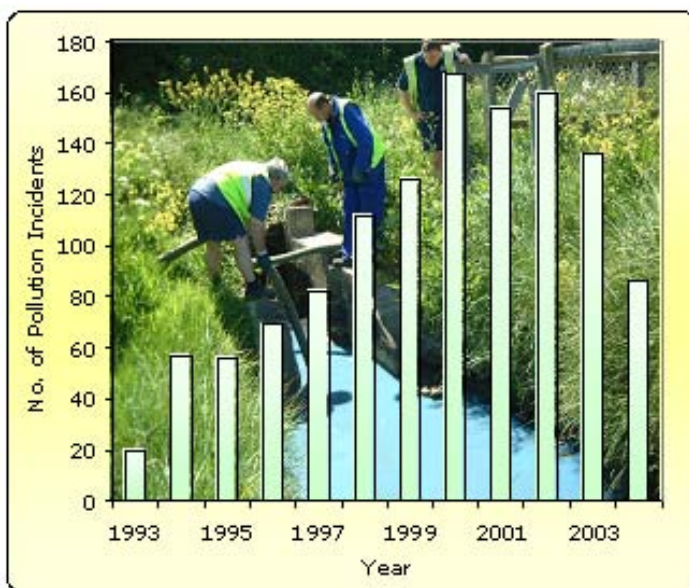
The graph (above) shows how Jersey compares to UK local authorities. It is clear that performance depends on the attitude and approach of the managing authority. We can see how Jersey compares to the 2004 recycling and composting figures for the UK. The top 10 councils are shown in green with the best achieving 46%, whilst the worst 10 are shown in blue with the Isles of Scilly managing no recycling at all. Jersey, shown in red, achieved 20% (in 2002). We can achieve more but there are some real issues associated with access to recycling markets and the cost of transport off island.

Water

The replenishment of local water resources is from rainfall – a finite resource. Around 90% of the Island's population receive their water from the public water supply, which is predominately collected from streams. Currently there are no controls to ensure that these supplies are protected from over abstraction.

The quality of these waters is affected by diffuse pollution (such as nitrates from fertilizer applications and soakaways) or point source pollution (such as oil spillages from heating tanks).

The graph shows how in recent years with the introduction of the Water Pollution law in 2000 and



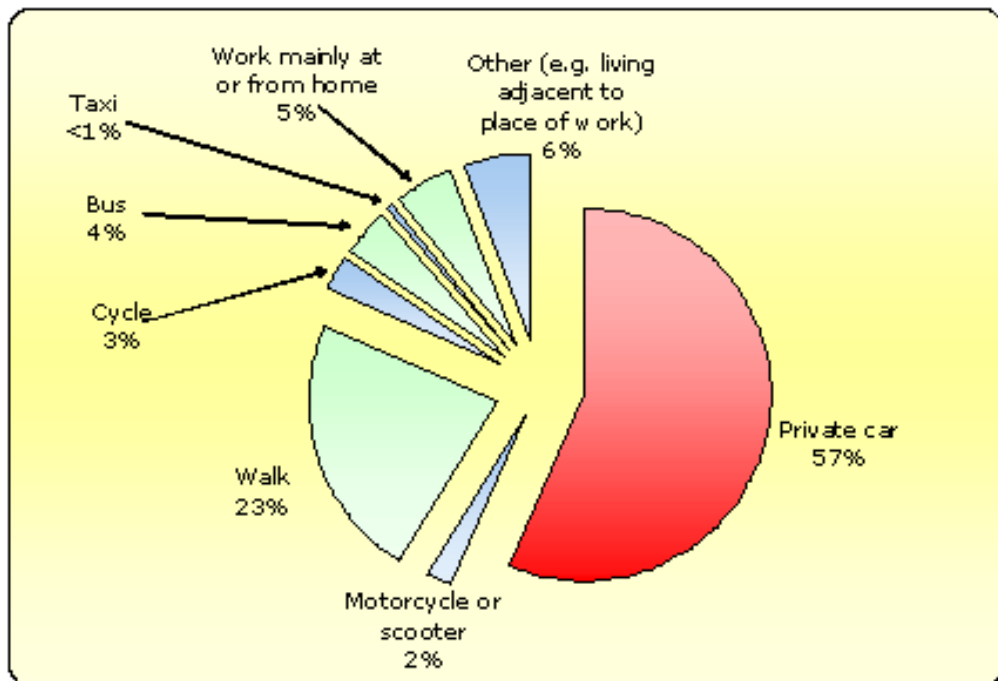
the associated education campaigns, the number of pollution incidents have declined

Transport

Jersey has the world's highest car ownership ratio, as well as a dependence on air transport for external travel. This results in:

- local congestion and an associated reduction in economic efficiency
- high carbon dioxide emissions which contribute to the greenhouse effect
- localised air pollution that occasionally breaches internationally agreed standards and has risks to health
- the fragmentation of natural habitats by the road networks, airport and harbour development.

The pie chart shows how 57% of the population usually commute to work by private car, whilst only 4% use the bus. We would like to see the numbers of people walking or cycling increase, especially as we have such short distances to travel.

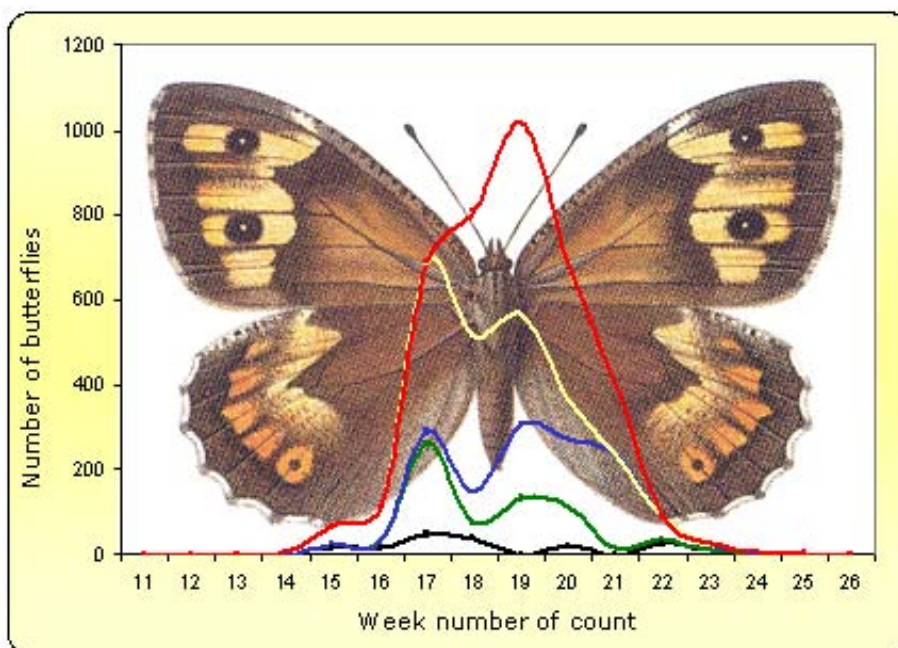


The Island is experiencing declines in the populations of common species such as toads, butterflies and farmland birds like goldfinches.

Evidence shown here (below) uses butterflies which are good indicators of environmental health. Counts at Les Landes mid-season in 1991 (red) and 1992 (yellow) are far higher compared to counts in 2004 (black).

To confirm the actual levels and explain the causes of these declines, we need robust, long-term scientific evidence.

Biodiversity



Countryside and Natural History

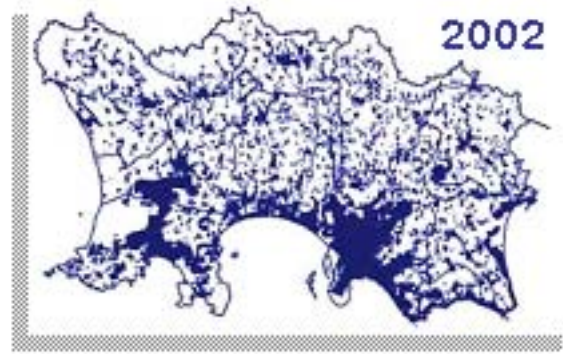
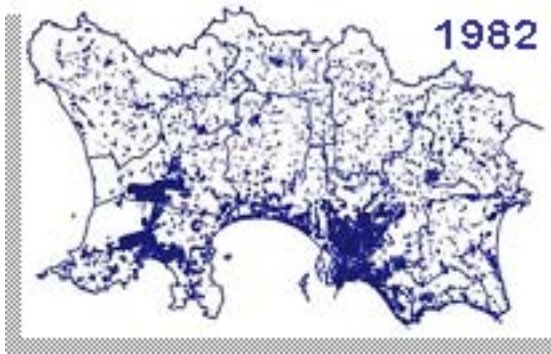
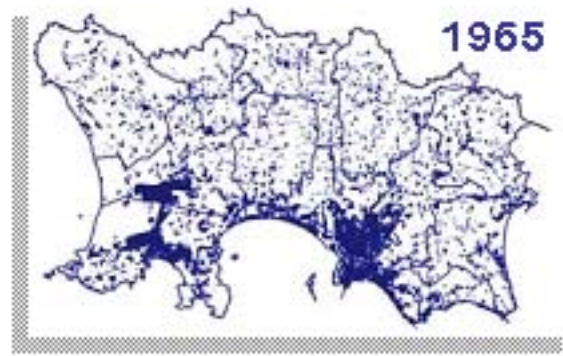
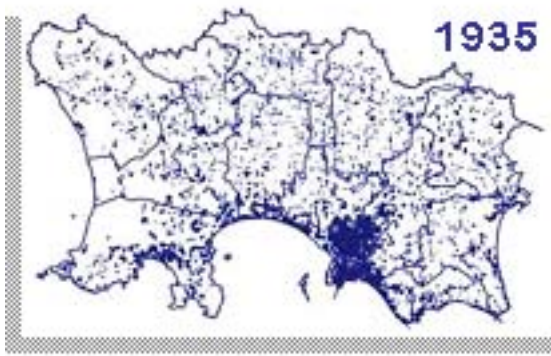
Nevertheless, the main causes of change in marine and terrestrial biodiversity are likely to be:

a) Encroaching development.

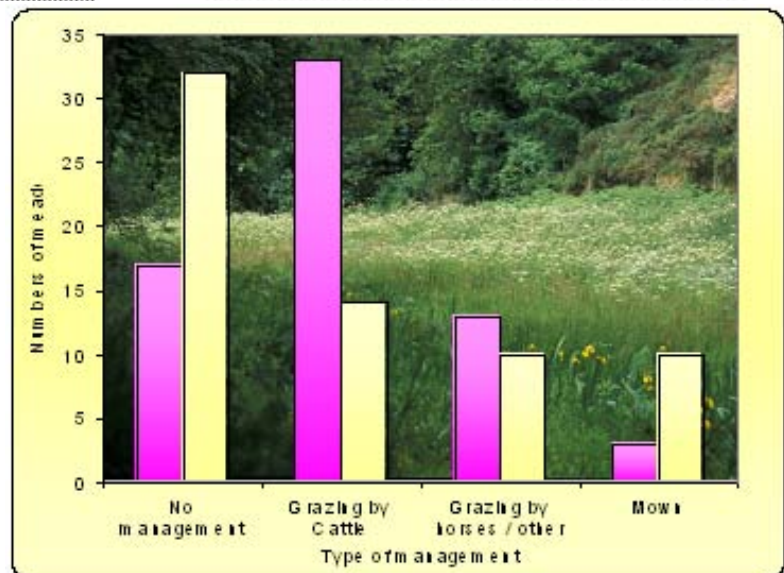
Development of previously undeveloped land causes a gradual sub-urbanisation of the countryside and coastal zone. The maps show how the urban areas (coloured dense blue) have increased substantially since 1935

b) Changes through habitat succession.

Although habitats change naturally, man's influence

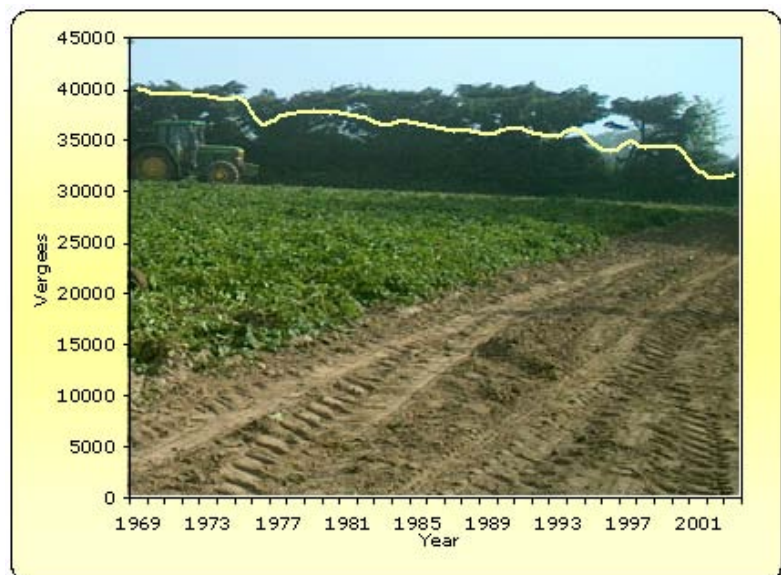


distorts nature's process and continuity. For example, in order for wet meadows to maintain their species richness, they must be grazed. The results of a survey in 1983 are shown (right) in pink and we can see how many meadows were grazed and most had some management. However when repeated in 2003 we can see that far more of the meadows had no management at all and the amount of meadows grazed by cattle had substantially declined. The quality of the flora in these meadows had substantially declined.



c) Changes in the rural economy

Traditional and long-term management of the countryside gave us today's familiar landscape. But economic pressures and changing practices have led to local water pollution and changes to our traditional methods of land management. We see (right) the reduction in the area of land farmed since 1969 from some 40 000 verges to 31 000 verges. (Verges are a local measure of area; there are 5.6 verges in one hectare.)



Our aim is to be a catalyst for change where this is most needed to address negative environmental trends and

to help prepare the Island for a sustainable future. We are planning to carry out a full review every 5 years and more often (on an interim basis) on trends in the indicators we have identified.

Six Guiding Principles

We have picked out six guiding principles that will help engender positive change:

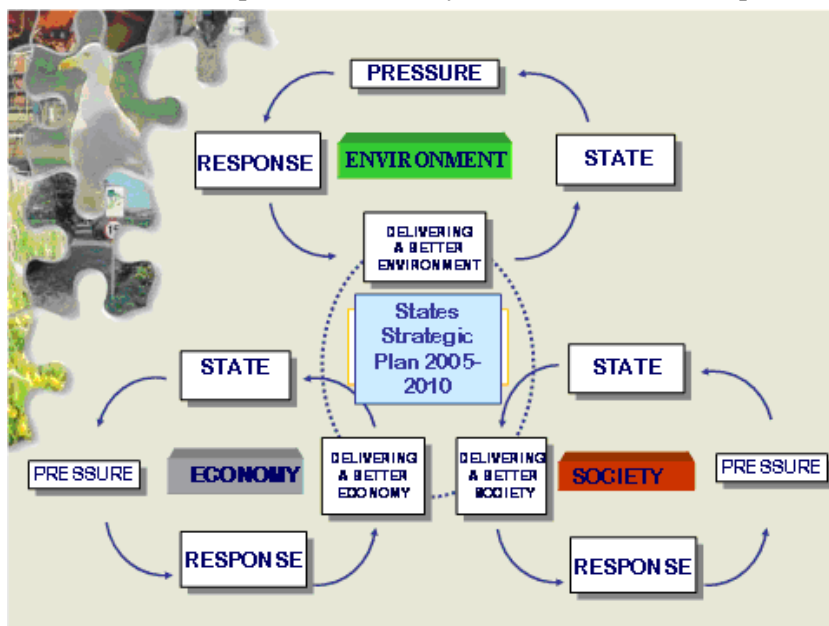
- Back ideals with actions – We aim to provide firm, fair, transparent and effective statutory regulation, taking a precautionary approach. Use fiscal mechanisms to change behaviour if necessary.
- Evaluate our progress – We aim to carry out, and report on, effective environmental monitoring to chart our progress, identify priorities for action and carry out effective management planning to make wise and measured use of public money.
- Work in partnership – We aim to consult, communicate and establish open relationships between organisations, stakeholders and partners to make decisions, target funds and share expertise. This will enable Jersey as a whole to gain maximum social, economic and environmental benefits.
- Educate and empower – The state of our environment is a collective responsibility. To help improve understanding of environmental issues and to foster better environmental practices in all walks of life, we will make environmental information easily accessible for individuals to assess the issues, participate in debate and make better informed personal choices and actions.
- Use finite resources efficiently – We must manage the critical and limited resources of water, soil and land wisely to underpin economic success and health.
- Act now and plan for the future – We must consider the future consequences of our current policies and actions. We must plan to ensure that we pass on our environment to future generations in as good as, or better condition than it is now.

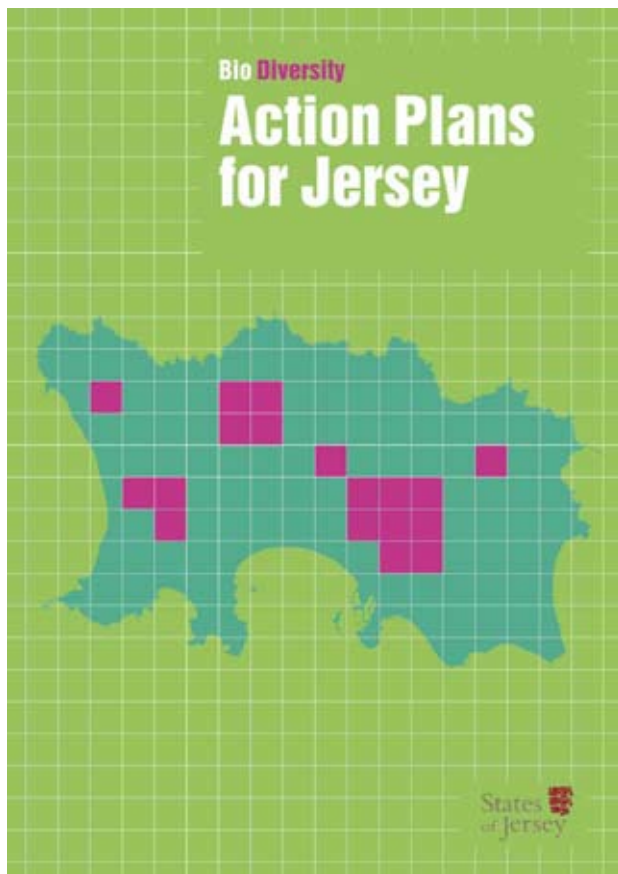
The focus has been on the state of the Environment - which is what you might expect of me given the job I do.

But we cannot just see the environment in a vacuum. Other people see the world from a different perspective and afford greater or lesser priority to environmental issues. There are important issues of social justice, equality and the interactions of society to consider

And we must have a strong economy to be able to afford the environment and society that we aspire to. The resolution of these overlapping objectives is the territory of sustainable development – where we join up choices and policies and make necessary concessions and trade offs with social and political processes. This report has contributed to the *States Strategic Plan* which will guide the Island's development to 2010

Finally, just a quick look at our most recent project, *Biodiversity Action Plans*. The action plans, covering over 50 species aim to get people involved at the very local level. As well as encouraging the organisation of group activities, we are also planning to help people to look after wildlife right outside their front doors. Roadsides in Jersey are mainly cut by the owner of the land, and are inspected twice in the summer. Several of the plants on our list grow on roadside banks and we have recorded significant declines over the last twenty years. One reason for this is the way these banks are cut. They used to be cut by hand, but now machinery is used which can often damage the vegetation. Timing is critical; ideally, the plants should be able to set seed before they are cut. We plan to get people to look after places where these plants grow, perhaps cutting round them by hand. Also Durrell's landscaping department are raising plants from locally collected seed, and we plan to





reestablish plants in areas where they used to grow. Volunteers will then tend them.

Conclusions

To sum up then, I think the following conclusions can be drawn :

- MEAs are extremely valuable in helping to raise awareness, but also, once an administration has ratified (or had ratified on its behalf), certain responsibilities are accepted giving force to conservation proposals.
- Second, it all takes a long time. Patience, determination and maintaining a sense of humour are essential.
- Third, education is absolutely vital. We have been at it long enough so that school children I spoke to twenty odd years ago now are parents themselves.
- The Pressure – State – Response framework is a powerful framework to develop policy.
- Finally, education leads to community involvement. Government can only do so much. We have always encouraged involvement with

NGOs, and the advantages are clear: informed comment and criticism of policy, lots of work gets done, and it does not cost much. This is important in times like now when budgets and staff are being cut.

Acknowledgements

I would like to thank Louise Magris, David Tipping and Nina Hall, of the ecology team, for their contribution to the report and to this paper

You can read the whole report and much else about Jersey's Environmental work at:

<http://www.gov.je/PlanningEnvironment/Environment/ReportsPubs/>



Jersey's Marine Environment

Andrew Syvret, Société Jersiaise

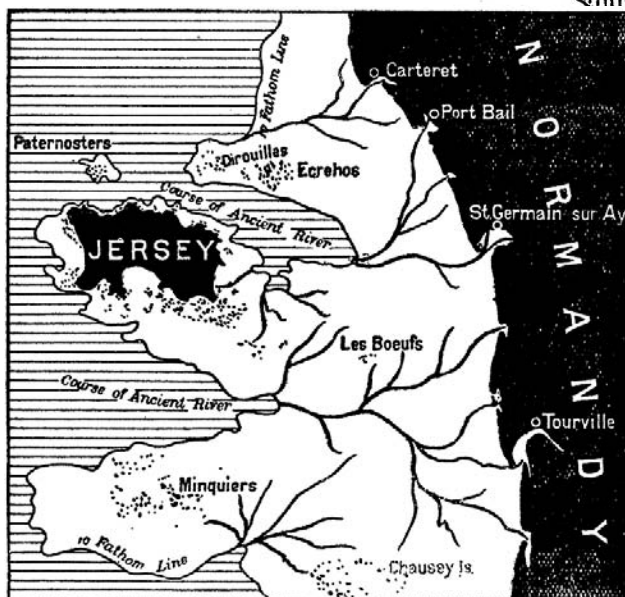
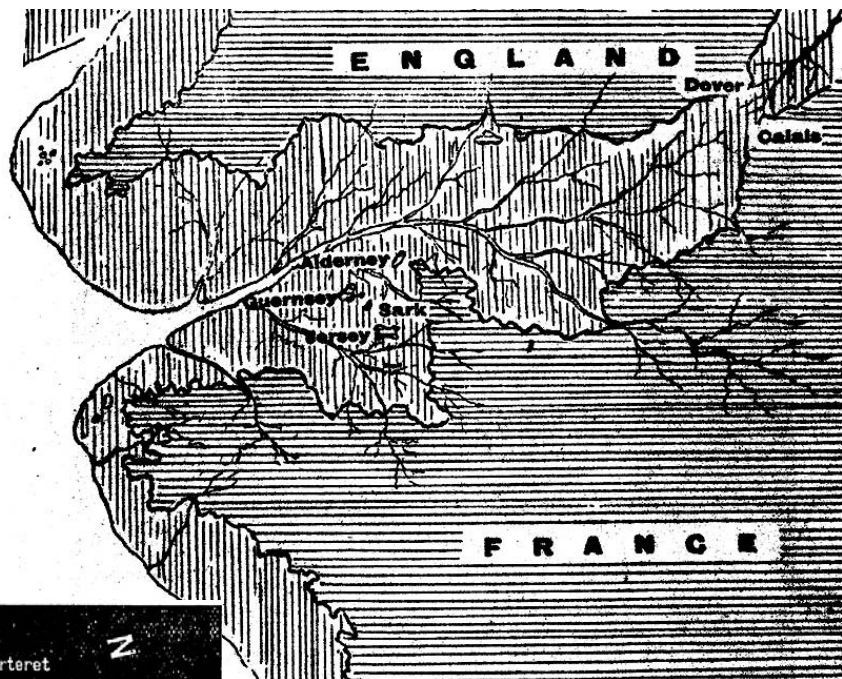


Syvret, A. 2007. Jersey's Marine Environment. pp 38-44 in *Biodiversity That Matters: a conference on conservation in UK Overseas Territories and other small island communities, Jersey 6th to 12th October 2006* (ed. M. Pienkowski). UK Overseas Territories Conservation Forum, www.ukotcf.org

The Channel Island of Jersey is surrounded by some of the most unusual and valuable marine habitats on the planet. A high-tide land mass of 116 km² swells to more than 300 km² with low-water spring tides. The Bailiwick of Jersey in its entirety (land and sea) is about 3000 km² in extent; therefore, the vast majority of this particular Territory, in common with many others, is marine habitat. With biological records stretching back to the Victorian era, the richness and unique biogeographical significance of Island shores and coastal waters is well known. However, it is frequently poorly acknowledged in proposals for shoreline development. Previous land-claim schemes adjacent to the South East Coast Ramsar site have destroyed and perturbed a globally recognised intertidal environment. In spring 2006, the States of Jersey's Council of Ministers made a strategic commitment to further land-claim south of St Helier.

Andrew Syvret, Société Jersiaise, Jersey. andrew@seajersey.com

Jersey is a relatively new island. At glacial maxima, when much water was locked in ice-caps, what are now the Channel Islands were hills in the valley which is now flooded as the English Channel (map to right). Jersey was detached from the continental mainland much more recently than the other Channel Islands, as shown by the later map (below).



Jersey remained connected to France until very recently (about 5000 years ago). As will be apparent, the Island is in a very shallow part of the English Channel.

The Channel Island of Jersey is surrounded by some of the most unusual and valuable marine habitats on the planet. A high-tide land mass of 116 km² swells to more than 300 km² with low-water spring tides. The Bailiwick of Jersey in its entirety (land and sea) is about 3000 km² in extent. Therefore, the vast majority of this particular Territory, in common with many others, is marine habitat and looks

like this at high water:



The huge tides of up to 40 feet (13 metres) range make Jersey a very special place. The offshore



reefs, pictured at here at low-water from the



ground and from the air, are covered and exposed by these tides twice per day. In some cases, tiny islets on the offshore reefs remain exposed at high-water, in a few cases with enough land on which to squeeze a few cottages (as in the picture at the top of the next column).

These reefs are critically important. In recognition



of this, Jersey has arranged to designate several as Wetlands of International Importance under the Ramsar Convention:

South East Coast (designated in 2001) ~ 3202 hectares

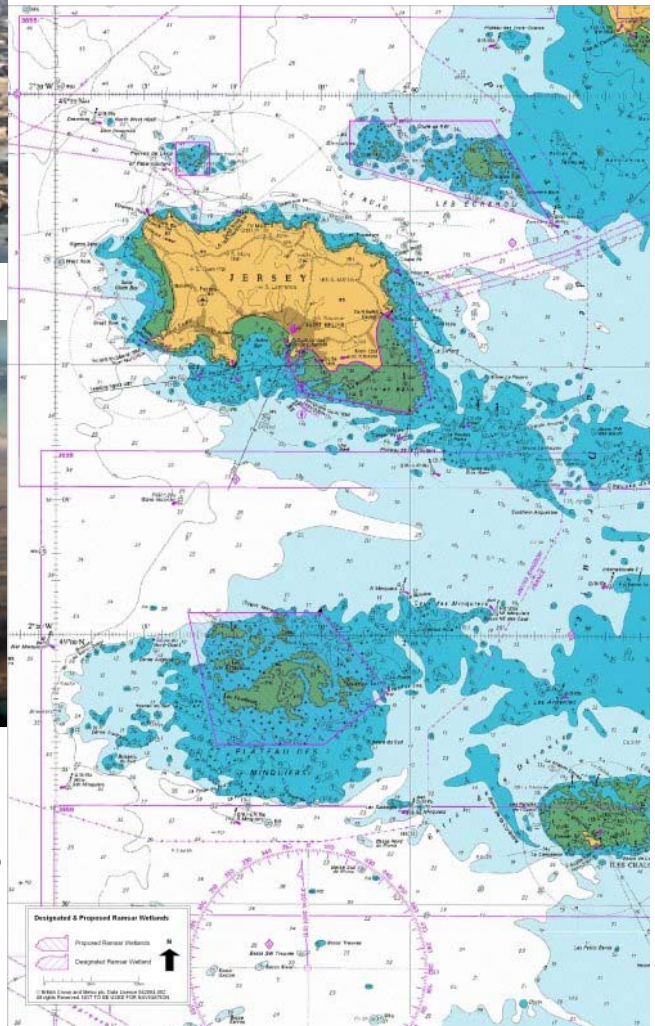
Les Écréhous & Les Dirouilles (2005) ~ 5459 hectares

Les Minquiers (2005) ~ 9575 hectares

Les Pierres de Lecq (Paternosters) (2005) ~ 512 hectares

TOTAL ~ 18748 hectares ~ 187 sqkm

These are shown with red boundaries on the marine chart (below). It is interesting to note that



the total dry land area of Jersey is smaller than the combined area of the Ramsar sites.

The area supports one of the largest breeding popu-



lations of bottlenose dolphins in the British Isles.

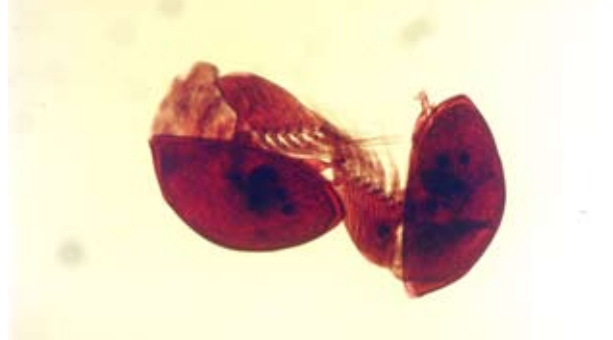
Seals are recovering (despite accidental deaths



from human activity as pictured) and shorebirds, such as this arctic-breeding turnstone are abundant.



Jersey shallow waters are huge incubators; water warmer than surrounding seas in summer and colder in winter. Juvenile lobsters (pictured) and



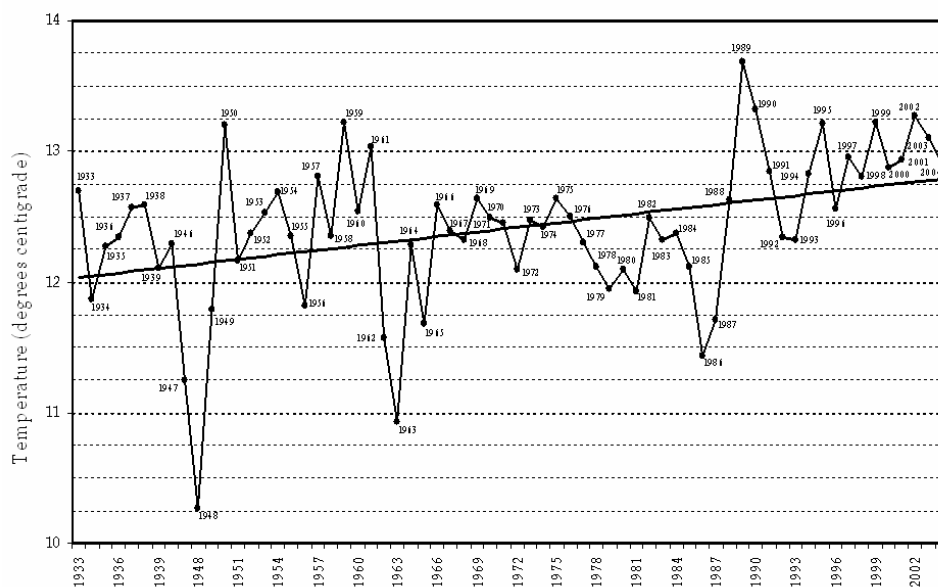
other species migrate and live within the warmer and shallow waters around Jersey.

Biodiversity is high; there is no sterile environment in this marine ecosystem - everything is occupied. Ormers have been a robust barometer of seashore health

Populations change; there used to be billions of octopus in Jersey waters, as reported by Joseph Sinel in 1906 with reference to the octopus in Jersey: “Yet another plan, much used in the autumn especially on the north coast of Jersey: in this particular locality and at this time, they sometimes swarm on the sea surface. Men armed with long bamboo rods with large hooks at the end, station themselves on outlying rocks, and simply hook them out as they pass. I have seen many tons weight caught in one locality by this method and being used to manure the land.” However, now there are virtually none; they seem to have been killed off by one hard winter.



Mean annual sea temperature ~ St Helier Pierheads ~ 1933 - 2004

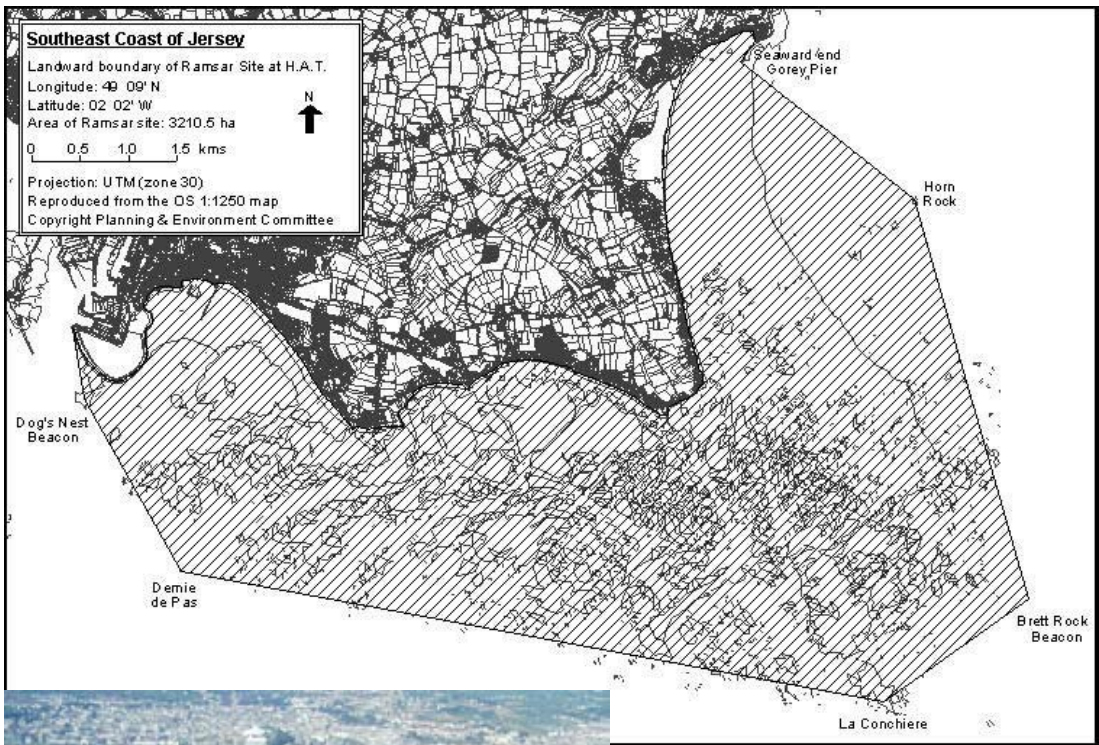


The area lacks a marine research station or even an aquarium. However, there is a good dataset of sea temperatures.

With biological records stretching back to the Victorian era, the richness and unique biogeographical significance of Island shores and coastal waters is well known. However, it is frequently poorly acknowledged in proposals for shoreline development. Previous land-claim schemes adjacent to the South East Coast Ramsar site have destroyed and perturbed a globally recognised intertidal environment. A huge land reclamation project is in progress, using among other things “recycled” glass (see aerial photographs and map of its position relative to the Ramsar site).

In spring 2006, the States of Jersey’s Council of Ministers made a strategic commitment to further land-claim south of St Helier. The land-claim site is within the





There are also a large number of other environmental issues that “they don’t tell the tourists about”. These include:
land reclamation projects (pictures below and at top of next page),



Ramsar site. Land reclamation is a stated priority. Jersey is the site of some of the largest reclamation projects in Europe.





Gorey Marina Proposal
Société Jersiaise – 4th August 2006



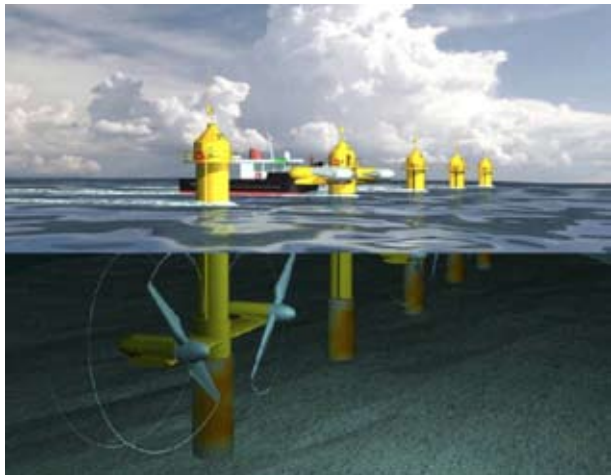
fishery by-catch of cetaceans and other species,



pollution,



marine invasives,
nuclear reprocessing and technology within close proximity in France and possible contamination,
novel energy sources, whose impact needs assessing,



eutrophication from pig-farming , agriculture, etc with “red-tide” plankton blooms from time to time,

mechanised sand-raking for the beaches destroying food for turnstones



marine recreation posing challenges to eelgrasses.



“On the great attractions of Jersey for the natural-ist, one word will suffice: there is no such spot in England for marine zoology.” George Eliot 1857