The 15th IIEM Conference Alderney October 2015
Conference notes

IIEM Day One: Terrestrial topics. Thursday 1st October, 2015

Welcomes

Stuart Trought - President, States of Alderney – The President welcomed all the delegates from CI, IoS, IoM, IoW and the UK representing a range of organisations, (NGOs, government, commercial enterprises, education and individuals interested in the environment). The contribution of the people and commercial sector of Alderney along with the States of Alderney was also recognised coupled with an appreciation that the interaction of responsible commercial activity and biodiversity was the way forward.

Andrew Mills - Business Manager, Insurance Corporation – Andrew welcomed all the delegates to the conference and was glad as the representative of Insurance Corporation, a local insurer, to sponsor the event and maintain the company's focus on the environment which it has shown for over 25 years in a range of contexts through the Channel Islands.

David Wedd Member of the AWT – David paid tribute to Pat Costen, former President of the Société Guernesiaise, for her many contributions to the Channel Islands community whether as a gardener, cook or natural historian, she will be sadly missed.

Roland Gauvain Manager of the AWT – Welcomed all delegates and reminded them that the event was being recorded and asked delegates to promote it through real time social media along with using the 'white boards' as a means of capturing themes to be considered over the coming year.

Presentations: Management and the wider environment

13.15 – 13.30 – Emma Cary, UKOTCF/Roland Gauvain, Manager AWT: An introduction to UK Overseas Territories Conservation Forum and its European Working Group; and the potential for developing thematic objectives between Crown Dependencies (CDs) and Overseas territories (OTs).

The IIEM had started some 15 years ago in 2000 and developed with a focus on communication and networking with a prime aim of supporting each other in our respective areas. Delegates were given an overview of the challenges faced by CDs and OTs, particularly small island communities, where funding, resources and expertise are in short supply. Hence there was a focus on how networking and information sharing can be beneficial in developing actions. Reference to the European Territories Group (CDs, (SBA -Cyprus), Gibraltar) approach using regular Skype and an annual face to face meeting was shared with common themes of (i) Funding, (ii) Invasive species, (iii) Charters and Conventions e.g. AICHI and (iv) trans-boundary issues emerging for organisations to focus on.

Action – All delegates to examine themes and feedback

13.30 —13.45 —Tim Liddiard, Senior Natural Environment officer, States of Jersey Environment Dept: Monitoring Habitat Management in Jersey

The current monitoring regime was initiated in 2008 with an assessment of conservation sites (22 SIs) and compared with a re-assessment in 2014. Trends were then fed into a management plan so that resources could be targeted appropriately. Several case studies were used e.g. Bouley Bay and Noirmont Common where site objectives were established and monitoring undertaken to ascertain whether the objectives were being achieved e.g. through the use of quadrats (easy to use and repeatable) and drones (for difficult habitat types – coastal paths) for specific habitat types and species e.g. *Ulex* heath. Hence able to target management based on comparison at quadrat level – highly specific and effective.

13.45 – 1400 – Robert Manzano Rubio, Conservation Officer, AWT: Monitoring Alderney's Environment

The presentation focused on the AWT nature reserve, Longis Common, and the issues regarding effective monitoring and the concomitant trends in wildlife distributions and so how effective management plans should be developed. The case study was a freshwater pond area surrounded by reed beds and bracken which needed control. A wide range of butterfly species were found here and measured using standard weekly transect methods and a number of iconic bird species highlighted. Dartford warbler and Skylark distributions were monitored for example skylarks - 2005 15 pairs, 2015 2 pairs – was this down to real decline or sampling method? Comparisons to past data and UK data helps give greater validity. Planning further data surveys to establish proper baselines are needed so that effective plans can be put in place for the future.

14.00 – 14.15 – Chantilly McCarthy, Lancaster University: Environmental Management of Protected Habitats in Jersey.

The presentation focused on lithosere seral succession and the need to manage woodland if development is to be effective; e.g. bracken suffocates developing species due to toxins. This can be managed by human clearance or use of introduced species e.g. Manx Loaghtan sheep – an anthropogenic effect which helps to develop heathland. Further introductions such as the Chough in Jersey were also referred to.

14.15 – 14.30 —Duncan Bridges, CEO Manx Wildlife Trust: Manx Shearwater conservation on the Calf of Man: progress on eradication of brown rat population

The Manx shearwater recovery project acted as a catalyst to other work undertaken on the Calf of Man which has acted as a bird observatory for over 50 years. The Manx shearwater was first identified in 1678 with estimates of 1000s. However by 2000 there had been an infestation of brown rats which affected the Shearwater population. The Manx WT was tasked to control / eradicate the rats which initially was costed at £120 - £200,000 an amount beyond the budget. Hence a different approach was called for which was a multiagency development using poison and ongoing monitoring. 1172 bait boxes set up on a 50m grid and examined on a fortnightly cycle. Difficulties include how you baited boulder fields effectively. A further check on eradication through the use of camera traps to cross check the eradication program is important. Over all the costs was approximately £52,000 with labour coming through the use of volunteers from far and wide whilst also generating a very high level of international interest in the project. Initial figures would indicate shearwater recovery but also a decline in wood mice, however lizards are increasing hence the effect of this intervention is multi species and the approach of multiagency and collaborative effort was key to the effectiveness of the project.

14.30—14.45 – Discussion – Questions

1. **Were there any effects of the rat poison on other species?** Fairly minor regarding Owls, Corvids and Choughs; though the poison used was highly toxic it was not persistent. This is coupled with rats dying underground and hence not been fed on by surface dwelling birds.
2. **What is the range of rats swimming to the Calf of Man?** 800m channel and rats have been known to swim much further, hence the need for constant monitoring regarding re-infestation.
3. **How do you monitor regime success?** The ongoing process is resource hungry but so far so good, working with the NT.
4. **How can modern technology be used?** Use of drones and LIDAR. (Action – will share methodology)
5. **How do you use volunteers?** A need to educate volunteers regarding safety of handling poison and the concomitant risks, hence expanding skill set of volunteers.
6. **How do you mobilise volunteers?** Take on annual Post- graduate placements with specific job descriptions developed over the year. Good through flow of expertise but issue of discontinuity. In Jersey biodiversity partnership using face book and volunteer requests along with using the probation service as a resource.
7. **What issues are there using drones?** Air traffic control, pilot licensing and insurance.
8. **How do you assign habitat prioritisation?** This is done through balancing what is present and the original designation, hence creating a 'degree of difference' and hence action.
9. **How does tree cover impact of species diversity?** Varying effects depending on dominant species e.g. sycamore and holm oak present differing biodiversity communities.
10. **How do you define wildlife / conservation habitat objectives?** There is a need to be pro-active in defining the objectives and look at them in the current context. Habitats will have gone on a seral journey and so judging against time is to be guarded against whilst using the standard NBC designation is a desired route. Examples of holm oak being controlled by goats in the IOW.

11. **How do you judge local conservation needs against global requirements?** Look at habitats on UK / European mainland as comparators but be aware of the island effect.
12. **What is the relative influence of domestic habitats on diversity?** Gardens are a tremendous habitat resource for birds and insects and should not be underestimated and hence should be promoted in our communities.

Presentations: Terrestrial Species

15.00– 15.15 – Rob Ward, Kent University and Durrell Conservation Trust: The secret lives of Jersey's grass snakes: what can tracking tell us.

The presentation focused on the only species of snake found in the Channel islands – the grass snake. 60 snakes were found and 25 radio tracked using a 1.3g tag attached to the tail in the La Mielle de Moreville nature reserve. 11 snakes were effectively tracked and key findings included: (i) Range size of 0.5Ha – 12Ha with overlapping ranges, (ii) No antagonistic behaviour was recorded, (iii) Speed of travel is highly variable, (iv) Snakes appear to be familiar with the landscape and (v) snakes are rarely seen and avoid roads. In conclusion in reflecting on this data it is possible to develop site management and conservation strategies that promote grass snake success.

15.15– 15.30 – Annika Binet, Jersey Bat Group: Roost register

There are 13 species of bat in Jersey with 7 breeding at well known roosts which are in man-made structures. The Bat group have set up a robust data base of roost site and species associated with them. September 2015 262 roost sites had been identified with the range of species confirmed through a combination of sound, DNA and faeces analysis. In creating this data base it is possible to inform planning law as bat species are good indicator species of biodiversity. A long term project of re-surveying using volunteers every 2-3 years is now being considered, however there is a challenge here as there are still gaps. Hibernation sites are not well known and need to be established, i.e. in unexplored bunkers and should be further investigated. Bat boxes have been sited around the island with the first record of roosting found this September.

15.30 – 15.45 — Denise McGowan, Natural Solutions: Jersey small mammal survey 2014—results findings and questions

In 2014 a pan island survey was undertaken using Longworth traps at 22 different sites to compare with the survey carried out in 1998-2000 with the purpose of developing further environmental management plans. 4 species found – Jersey bank vole, White toothed shrew, Millet's shrew and Wood mouse. 2300 animals were trapped with 9 habitats proving fruitful, 5 out of these 9 habitats contained all 4 species. Overall small mammal populations are in a healthy state and also showed that there was a need to undertake a habitat analysis at the same time so that habitat type and mammal diversity can be linked. This would then enable an effective habitat management plan to be enacted. The key to any management plan is accurate monitoring information which requires effort and analysis.

15.45 – 16.00 — Nina Cornish, Research Ecologist, States of Jersey Environment Dept.: State of Jersey's Butterflies

Butterflies are excellent indicators of the health of the environment and can tell us what is going on. As an aspect of 'Citizen science' it is possible to create good quality data from volunteer observations. A simple methodology was used using a regular weekly standard transect walk with the associated TRIM analysis; 38 transects were undertaken across the Island and yielded 24 common species with 14 increasing in numbers. Comparison with similar data in France and UK was essential to give clear base lining. Habitat management in those areas could then be addressed effectively and management plans put in place in both urban and pastoral areas. Good data also enables us to see potential climatic effects e.g. the disappearance of species and the appearance of new species. Overall this project promotes understanding of the environment at the 'citizen' level and should be linked to the Island plan to promote effective biodiversity conservation and development.

16.00 – 16.15 — David Wedd/Robin Whicker, AWT: "*WATCH*"

This presentation concentrated on how to develop an effective youth movement focussed on an understanding of the environment. There are 300 WATCH groups across the UK and only Sark and Alderney produce a magazine. This summarises the many activities children undertake in relation to the world around them and celebrates the way in which adult volunteers and group members can actively undertake real science / natural history study. Examples in Alderney include work on hedgehogs (Blonde and normal), conservation work regarding Brown tailed moths and beach clearing. WATCH group members also have the benefit of using moth traps, pond dipping and bird watching through the RSPB 'Garden Bird watch' project which with an understanding of habitat diversity enables them to promote tourism on the island for example the Glanville fritillary is only found in Alderney. WATCH membership also enables members to attain a set of awards Hedgehog, Kestrel and Ranger which acts as a motivator for many young people. The key to success is enthusiastic adults who inspire and motivate young people who then become the leaders of tomorrow.

16.15– 16.30 – Ashleigh Carden, Reserves Officer, AWT: Managing Alderney's Conservation Volunteers

The presentation reviewed the varying approaches to attracting, managing and retaining WT volunteers who are key people in environmental work as they potentially are the 'manpower' for undertaking the wide range of work necessary to monitor and develop the environment in what are financially very challenging times. Volunteers can be used in a range of ways; (i) Working at community events, (ii) monitoring and (iii) active environmental management. There are however issue regarding the management of volunteers, for example management of tools by volunteers, finding new recruits and the effective execution of sessions. Strategies to recruit include print media, radio and social media with an emphasis on understanding the environment and undertaking mild exercise at the same time coupled with enjoyable socialisation with like minded people. The keys to success include positive inclusive planning with the group which includes shared planning and social activities. This can be developed further through providing leadership roles for volunteers e.g. i/c boat, footpaths, tools etc. There is also scope in publicising activities to emphasise the concept of skills development that can be used in their working lives.

16.30 – 16.45 – Discussion – Questions

1. **How to promote volunteering?** Many strategies focussing on rewards e.g. food!, up skilling, social networking, also looking outside the norm e.g. of an artist who offered to 'make a 50m whale'. Regular surveying of volunteers about their feelings over volunteering was also thought to be important. Approaching other organisations was also a fruitful area e.g. WI, OAP, Finance Houses and youth groups. Devising an active induction and handover periods were also thought to be effective as a means to retain and motivate volunteers.
2. **How effective are bat boxes?** High quality bat boxes are needed and different types tested out as they may be species specific.
3. **What underlying biological effects are there on grass snake populations?** Though more data is needed there are genetic implications regarding inbreeding depression and isolation along with carrying capacity of the population.
4. **How effective is the current tagging methodology?** Tags can be lost as the snake sheds its skin.
5. **Can owl pellets be used to clarify small mammal data?** This was undertaken and gave some initial data on distributions which were then correlated with the food sources in the area.

The day concluded with a fish and chip supper at Fort Tourgis which overlooks the Alderney RAMSAR site coupled with bat and hedgehog walks, some star watching on a wonderful clear night along with continued networking between delegates over a convivial libation or two.

IIEM Day Two: Marine and Ornithology topics. Friday 2nd October, 2015

The day started with an early morning walk for participants celebrating 10 years of Alderney's Ramsar Site followed by a hearty breakfast back at the delegates' accommodation.

Presentations: Marine protected areas

09.15 – 09.30 – Joan Edwards, Head of Living Seas, The Wildlife Trusts: Marine Protected Areas (MPAs) in the UK

Living Seas, an NGO with a full time equivalent (fte) work force of 40 aims to protect the marine environment and works in association with a wide range of organisations including the 47 WTs with a membership of some 900,000, 3 of which are Island communities (Alderney, Isle of Wight and Isles of Scilly). Challenges focus on:

i. Fishing pressures and the need for MPAs to facilitate environmental protection.
ii. Encouraging implementation of the Habitats and Birds EU directive.
iii. Local UK legislation.
iv. Working with stakeholders to implement actions.

Case studies focused on the different approaches that have been tried and showed how ineffective actions were in Wales which took a top down approach compared to England which built up understanding from local stakeholders regarding the implementation of MPAs. The result is 127 conservation zones which are well managed ecologically coherent zones representative of the marine environment *in toto*. Ultimately the Marine Strategy Directive should be implemented by government by 2020 and this will only be done using an inclusive approach as there is not the finance to enforce the directive and there is a need to use local knowledge in the implementation phase.

09.30 – 09.45– Dr. Fiona Gell, Fisheries Directorate, IOM: Establishing and Managing Marine Protected Areas in Partnership with Fishermen

This presentation illustrated how effective stakeholder engagement with fishermen leads to effective Fisheries Management Zones (FMZs) in the Isle of Man (IOM). Background information regarding the IOM fisheries highlights a £12 million a year industry, 400 jobs and a 12 nm sea jurisdiction. Initial proposals in 1989 for a MPA in Port Erin were resisted by fishermen due to a lack of engagement and hence understanding of what was proposed and what the outcomes would be. In 2008-2011 surveys were undertaken across the IOM jurisdiction waters which highlighted particular areas as under pressure and where for example scallops are harvested and where they develop. Out of this information a public engagement exercise was undertaken which led to effective public/fishermen engagement that resulted in the fishing community sharing in the development of the new MPA proposals. This led to zoning with the fishermen and joint surveys which have contributed to a sustainable fishery and as a result marketing opportunities regarding the environmental credentials of the IOM scallops. Fishermen have also agreed and proposed closed areas and developed through joint knowledge an adaptable approach. The key message being joint working and effort in public engagement with good data.

09.45 – 10.00 – Dr. Tom Appleby, Senior Lecturer in Law University of the West England, UKOTCF: Governance in the Marine Environment

Dr Appleby reviewed the potential pitfalls of the legal and public relations work that is needed in developing legal frameworks to control the use of the marine environment. Legally the sea is land covered with water, however the public has a right to navigate and fish in those areas. A case study of the implementation of a MPA in the BIOT Chagos Island area was described with an emphasis on the difficulties encountered and the need to control the story / narrative as otherwise good intentions can be derailed. A key aspect being to understand the historical landscape that has led to the current situation and use this information appropriately, hence ' controlling the story'.

10.00 – 10.15 – Chris Wood, National Coordinator, Seasearch: Citizen Science for Divers and Snorkelers.

Seasearch is a good example of Citizen Science involving a wide range of divers and snorkelers around the British Isles. Members undertake survey dives and target biological knowledge gaps with a focus on priority rare species and MPAs. As a result it is possible to record indicator species which may illustrate climate change and anthropogenic effects e.g. pollution. In 2015 some 2000 record forms have been submitted which are then checked and a biotope assigned. This data is put into a main marine data base (The National Biodiversity network) and contains some half million species records and 60,000 habitat records. Members of the group are all volunteers though some 25% are biologists and a range of resources are produced regarding identification and training. As a result of this work conservation areas can be identified across the UK. The Channel islands have several special habitats including: (i) Sea grass beds, (ii) Sponge and Athrozoan areas, (iii) Maerl beds, (iv) Tide swept rock, (v) Shallow tide swept caves. Local rarities include (i) Ormer, (ii) Black faced blenny, (iii) Anemone shrimp, (iv) Undulate rays and (v) Ballan wrasse. This illustrates the use of enthusiastic volunteers in real science and their effectiveness in this lowly resourced area.

10.15 – 10.30 – Discussion – Questions

1. **Would a Wild Life Trust covering all the Channel islands be appropriate?** There was general agreement that this was an area worth pursuing as it provided a different route into the UK and also a bigger voice to respond to wider scale events.
2. **How do bag fishermen influence fishing stocks?** This is a difficult area as some bag fishermen move towards commercialisation and selling their catches to local restaurants and fishmongers. Local laws/ directives are the most appropriate way forward but need to be enforced. E.g. spear fishermen can hunt for Undulate ray in Jersey.
3. **How can RAMSAR sites be developed effectively?** Examples of strategies for implementation were described. Successful implementation was based on science led conversations with stakeholders working from the bottom up e.g. 2013/14 The Humps in Guernsey.
4. **Are there parallels regarding marine conservation to terrestrial issues?** Yes there are similarities to the battles fought with farmers in the past regarding conservation issues where ultimately effective conservations strategies have been brought about through a "we" approach rather than an "us" and "them" approach. Government influence is key and there needs to be an appreciation of the relationship between finance and green/ environmental issues.
5. **How can CDs be influential in this area?** There needs to be an internal drive on the CD to get things done, using other's expertise and being measured in its approach to be most effective.

Presentations: Marine Environment

10.45 – 11.00 – Jessica Jennings, Environmental Health & Pollution Regulation, States of Guernsey (SoG): Sea-water quality in Guernsey

The presentation covered the approach that SoG takes to marine water monitoring which is based on the current EU directive. Initially 32 sites were monitored throughout the year, now reduced to 19 sites due to costs and effectiveness. Monitoring looks at faecal contamination, e.g. *E.Coli* which is assessed at the lab. There is currently very weak enforcement regarding inappropriate discharge and limitations regarding sampling e.g. weather. In reviewing results one has to take into account; (i)tides, (ii) season, (iii) time and location (iv) seabird and dog faeces. Data collected can be used for reviewing the health of shellfish beds and shore based fishing operations.

11.00 – 11.15 – Kevin McIlwee and Sam Blampied, Jersey Seasearch: Jersey Seasearch and Maerl surveys

The presentation was a case study of how citizen science was used as an information source for marine conservation plans in Jersey. The Maerl beds yielded a wide range of rare species e.g. sea slug sp., nudibranchs, sponge sp. , sunset coral. From the surveys undertaken it was possible to work with the local fishing community to identify areas that need protecting and those that don't .e.g. some areas are nursery beds for scallops and productivity studies have shown how their slow growth means their environment needs conserving.

11.15 – 11.30 – Ruth Dunn, Imperial College London: Channel Island Seasearch Assessment

The presentation illustrated the unique position that the Channel Islands (CI) are in regarding the marine environment as they are on the cusp of two biotas – North and South Europe which leads to unique opportunities for organisms. As a result a conservation review of the CI can yield interesting results due to the ever changing tidal and temperature gradients that are present along with anthropogenic effects. E.g. marine based energy generation developments. Using the database Bio Oracle correlations between wind speed and sea surface temperature and species richness have been established. Data collected has been through Seasearch records and GPS fixed cluster data. As a result mathematical modelling can be undertaken to model different scenarios which will enable a greater focus of conservation effort to take place where it is most needed.

11.30 – 11.45 – Bob Tompkins, La Société Jersiaise: Intertidal Gullies

The presentation focussed on a case study of the La Rocque gullies in Jersey. These gullies can extend for up to 1km and contain fish traps which influence flow and organism distribution e.g. Wire weed *Sargassum muticum*. As a result there are different distribution of other organisms e.g. hydroids, sponges, bryozoans where surface water temperature also affects distribution and diversity with over 15 species of fish found. As a result these gullies are a source of biodiversity and a unique habitat that needs conserving and further research.

11.45 – 12.00 – Francis Binney, La Société Jersiaise: Seabed Video Survey Techniques

This presentation focussed on the need for accurate marine habitat identification and the use of technology to speed up analysis of the seabed. Through the use by Seasearch members of underwater video cameras it is possible to identify precisely where conservation effort should be focussed. The video Seaviewer (cost £1600 or £2000 for HD) was used which had its challenges and collected data at a rate of 1km / hr as a trawl rate though one had to be careful about damage to both camera and boat depending on the speed of the boat. After collecting this data which is tangible and capable of being shown it was shared with local fishermen who could now understand why certain areas should be avoided and no-dredge zones implemented, The key here was good visual scientific proof used collaboratively to influence fishermen positively and hence the environment.

12.00 – 12.15 – Alex Herschel, Independent Marine Environmental Specialist, Guernsey: Marine Mammals in the Bailiwick

The presentation focussed on the potential impact of marine wind farms on sea mammal distributions. The key point being there are zones of direct potential injury to these mammals but also much larger zones of disturbance. Records of mammals are constantly being reported to the Seawatch Foundation and through the use of data very clear recommendations can be made regarding potential new developments, particularly as the wind farms have become more complex moving from phase 1 to phase 3 as pile size has increased. The key question is 'are we developer ready?' Do we know what the animals are doing and are there in fact new opportunities/biological niches that marine mammals may adapt to.

12.15 – 12.30 - Discussion – Questions

1. **What are the implications of wind/ hydro turbines on creating new habitats**? Potentially these areas are becoming protected areas and as a result may lead to new opportunities.
2. **How is information and expertise shared across the CI?** There is a fund of individual knowledge across the Islands but a more effective knowledge sharing protocol needs to be set up e.g. a Skype enable sharing focus group. Further records can be sought from Condor and a central record centre established using perhaps the non-legally binding OSPAR convention as a lever. There are hence opportunities for building on the sharing of records between Guernsey and Jersey with all of the CI and seeking to involve fishermen at the same time as they see why avoiding certain areas can be beneficial in the long term.

Presentations: Ornithology

13.00 – 13.15 – Vicky Warwick-Evans, Liverpool University: Seabirds in Alderney: current status and potential threats

The presentation was based on the work of a PhD submission which was examining the status and potential effects of renewable energy installations on seabirds in Alderney. The key species was the Gannet and the investigation using radio tracking and ringing was able to show where Gannets travelled on foraging trips. This data could then be used to create a predictive energetic mathematical model for assessing anthropogenic effects. Hence one can examine the relationship between fishing behaviour and overall productivity and issues such as group foraging and the transition from fledgling – average mass 3.7kg to adult – average mass 3.5kg. Though yet complete the model will be a powerful tool in predicting factors that affect Gannet productivity.

13.15 – 13.30 —Jenni Godber, Ramsar Ecologist, AWT: 10 years of Ramsar, what next?

This presentation reviewed the Alderney RAMSAR site and what future issues and aims the site will build on. There are approximately 2000 RAMSAR sites in 168 countries with the Alderney site being designated in August 2005. As a site it needed to satisfy a range of criteria which in Alderney's case was rare marine species – the Ormer, more than 2% of the world population of Gannets and a global priority habitat. This designation was achieved after clear environmental monitoring and over the last 10 years a very clear monitoring procedure has been in place. In the future there will be a greater focus on the RAMSAR site as an economic resource with a focus on potential tourism, education and ecology and the associated anthropogenic effects. The work of the Tag A Gannet (TAG) project was shown and illustrated the large foraging ranges that Gannets (10 TAGS monitored through instantaneous GPS download when in mobile phone signal range giving data on GPS and altitude) have coupled with a very varied feeding behaviour – (Random v highly regular daily geographical focus).

13.30 – 13.45 – Paul Veron: Early indications from year one of the 2015-2018 Seabirds Count Census

This presentation focussed on the CI seabird work that has been undertaken over the last year in preparation for the UK wide 2015 bird survey which follows previous surveys undertaken in 1969/70 and 1985/86. In 2014 there was a seabird wreck in the CI area and so real substantive data was needed to establish current base lines rather than going on 'gut feel'. This has been undertaken which has introduced more young people to the monitoring team and filled a data vacuum. There are however issues of standardisation to be addressed for example there are some 'odd results' from Sark. Hence further quality checks need to be undertaken to establish the validity of the data.

13.45 – 14.00 – Discussion – Questions

1. **Do gannets show territoriality?** Gannets will fly back and forth from their Gannetry across each other and can feed in the same areas so no real evidence.
2. **Do gannets learn where to feed?** No obvious evidence as ringed birds show no obvious feeding pattern and there is little chance of genetic acquisition due to the way fledgling gannets stay on the water before they can fly to feed.
3. **How refined can the gannet model be?** It will be possible to model the influence of the initial dive on the individual birds and then whether this encourages others to dive and so provoke a feeding frenzy.
4. **Has shag productivity changed?** Surprisingly numbers are static but productivity is down maybe due to more difficult sites being colonised?
5. **What has been the effect of the seabird wreck?** Recovery is probably mainly due to transfer from other areas rather than a rise in productivity. It may take 5 years or more to recover to pre 2014 levels, hence the need for good quality data.

Overall Conclusion / Questions

1. **Contact details regarding the European Territories Group (CDs, (SBA -Cyprus) and Gibraltar to be distributed.**
2. **What are the implications of all of this work regarding climate change and the strategies to address new issues as they arise?**
3. **Can we address invasive species and disease as a result of increases in global warming?**
4. **Is there scope for a University of the Channel Islands which could provide a real focus for scientific environmental work.**
5. **How do we better utilise skill sharing between Islands?**
6. **Can we use digital media more effectively within an sensible budget to help raise awareness of the issues raised?**
7. **Can we develop a strategy sub group meeting where we can continue our collaboration regarding ' big ideas'. If so then we need a very clear script to ensure that we don't get bogged down in details but keep a focus on those big ideas with implementation plans undertaken at the local level.**
8. **Venue for 2016 – Any offers?**

A final word of thanks from Victor Brownlees, CEO Alderney who thanked all participants for coming to Alderney which was very important for the island. He hoped that they appreciated our commitment to the environment and was very happy for the States of Alderney to contribute financially to further Skype and other associated meetings to maintain momentum.

Ian Carter
(Note taker)