

# eden estuary

annual report 2017-2018

Report compiled by Ranald Strachan. Countryside Ranger



**FIFE COAST &  
COUNTRYSIDE TRUST**

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# Eden Estuary Annual Report 2017-2018

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Presented here is the last annual report of endeavour and gain to achieve the objectives laid out in the 2013-2018 management plan. The new 2018-2023 plan should be in place in September 2018.

The reporting year has again proved challenging and uncertainty over changes driven by diminishing budgets and administration changes continues. However it is good to report again that the reserve is fulfilling its remit and achieving gains on the objectives.

**The Reserve is 40 years old!** But as active now as it has ever been.

Coastal management continues to be an area of excellence on the reserve with the Green Shores project which aims to propagate marsh plants to enhance the Eden's marshes. This is the work of Clare Maynard once again and supported by a small SERG team, links have been made across the reserve with landowners and partners and in response to ongoing research and experience Clare has succeeded in gaining funding and the poly-tunnel is now in place on the Links Courses for the purpose of growing on local plants. There will also be new and innovative 'bio-rolls' placed along the seaward edge of the new marshes to reduce wave energy impact. All great stuff!

Along West Sands we undertook a further advance with constructing new dunes to re-profile the access and vehicle points. Based on ancient Roman designs of 'clavicular' or 'Stracathro' gates, they will assist in minimising sea flood on high tides. Great work by both the Links Trust and Fife Coast and Countryside Trust (FCCT) volunteers.

It's not all soft engineering as you know and St Andrews University completed the first section of their sea wall at the Eden Campus. This work went very well with minimal disturbance and interaction with the reserve. The Eden Campus is now moving along in development and part of this development has seen Ailsa Mackenzie, Programme manager and Ecologist, employed on site. There is a new Biodiversity Action Plan and The University has engaged with the reserve for inputs and discussions on mutual benefits to both sites. Recommendations to any biodiversity planning are mainly to do with wildlife connectivity and habitat support. This is a really positive development.

The Coble Pools are looking great and David Wallace has to be commended on his improvements on site. Cattle are now grazed on a heavier system, the pools are filling and flooding well thanks to our Maintenance Team and many waders and wildfowl have bene using it over winter.

On the bird front, this year saw some great counts undertaken by the ranger service and one David Bell of ECOS. Davy is an ex-Eden ranger and a friend whom voluntarily gave up valuable time to assist with a very intensive Low Tide Count this winter. This count is done every 10 years to inform the national databases of estuarine feeding use and importance. Some very healthy counts of Dunlin and Knot, however some notable low counts of Bar tailed Godwit and Grey Plover. Mixed records fortune for Sea Eagles, not been the best year for spotting's especially since December 2017. But great news they bred in 2017.

**EELNR Byelaws 2018-2028:** The byelaws are currently with Scottish Government for approval and ratification having been approved and forwarded by Fife Council. An oddity occurred with the Scot Gov. declaring our byelaws were not April 2018 but August 2018 despite all of our documents saying different. No matter. It is hoped they will be in place by 1<sup>st</sup> September 2018.

**EELNR Management Plan 2018-2023:** the plan is coming together well with inputs from members and SNH. The plan should be ready for agreement and sign off at September meeting 2018.

**West Sands Countryside Rangers:** An innovative Service Level Agreement has been completed between St Andrews Links Trust and FCCT to provide a ranger service over West Sands. This will mean site based dedicated Assistant Countryside Rangers (ACR) to support the Ranger in provision of a countryside service on site and to the wider Links concerns. This is a pilot project for 2 years and will greatly improve the environmental and visitor management aspects of West Sands. Staff will be based in a base on West Sands.

## **Fife Coast and Countryside Trust**

Fife Coast and Countryside Trust continue to prioritise high quality and sound management of the reserve on behalf of Fife Council. The Trust is under the same pressures as all public services at present. This year included a reduction of 25% in staff numbers, including Countryside staff such as rangers and maintenance operatives. This may mean some changes in administration and management of the reserve which may have some impact on site management however it is our intention these do not disrupt the exemplary service to date.

### **Volunteer Input**

The reserve is committed to sustaining a strong voluntary input and the ranger greatly appreciates the dedicated effort and meticulous input of our volunteers to the function of the reserve. The ranger would especially like to thank our dedicated volunteers George Adams, Ian Cumming, Tom Ross, Gordon Shepherd, Richard Pennington, Valentin Dupont, David Bell and Steven Watson. All these volunteers carry out vital and helpful actions including, surveys, wildfowl patrols, litter picks, bird and butterfly recordings and information sharing. ***Thank You!***

**Ian Cumming:** A special thank you to Ian this year as he has had to 'retire' his services. Ian is one of the 'founding fathers' of the reserve and was active on the estuary back in the 60's and 70's. A man whom has led a tremendously varied and interesting life, including working as a local Dentist, with Atlantic whaling fleets and even attending to Ernest Shackleton's gravesite in South Georgia His meticulous recording and keen sense of nature helped the reserve grow into what it is today. His last acts as a volunteer was to carry out duck counts on the estuary, alas he can no longer do this. Thank you Ian and good luck.

### **Sincere Thanks**

The ranger would like to thank all of the LNR network members and landowners whom have greatly assisted another busy year and allowed us to achieve our objectives again....***Thank you.***

***Ranald Strachan***

# Ranger Service Report 2017-2018

## Objective 1: Maintain and Enhance the Integrity of the Reserve to Support Viable Populations of Wildfowl and Waders (SPA, Bird Populations)

### Site Bird Surveys: SPA/01

- Heronry Census 2017 (Reres Wood) was carried out in March, April and May by ground survey: **11 estimated pairs**. Stable.
- Wetland Bird Surveys (BTO) carried out each month (including sea duck counts)
- Icelandic Goose Counts (WWT): Carried out October and November.
- Estuarine Low Tide Count 2017/2018: Nov, Dec, Jan, Feb. Results uploaded to BTO. Included in BTO bird reports.
- Beached Bird Survey 2018 (RSPB): February. Finds included Mute swan and Pinkfooted goose, Lapwing and various gulls.

### Non-Breeding Birds Monitoring: SPA/02

- Monthly counts of selected species (SSSI and Grey geese) are included as appendices.
- All EELNR bird records captured and forwarded to Fife Nature, BTO and Annual Report.

## Objective 2: Protect, Maintain and Improve Key Habitats and Related Species within the Reserve (SAC, Habitats)

### Monitor Harbour Seal Population 2017: SAC/01

- Monthly low tide counts at the main outhaul areas. All records are passed to SMRU, St Andrews  
Highest Count: **11** (Aug)      Lowest Count: **0** (Feb/May/June/Nov)      Average: **3**

**N.B/** LNR will no longer monitor Seal populations as of 2018. SMRU continue to monitor.

### Control Invasive Non Native Species (INNS) including Spartina: SAC/09

- Spartina grass is heavily prevalent in Shelly Spit and Balgove bay marshes, these areas received control methods by hand digging pioneer plants around and outside the marsh edge. Plants have been noted along the north shore and encroaching further west on the south shore. All these pioneer plants were hand dug along these sections where appropriate. A small amount is left in residual marsh in 'RAF' bay on north shore. Hand digging will continue in 2018 to control spread.
- Giant Hogweed at Motray Water is still at infestation levels higher up the watercourse. The lower reedbed area is clear and under control. Significant effort may be required to manage the upper reedbeds, the lower reedbeds will continue to require annual monitor/treatment.

### Monitor Saltmarsh: SAC/03

- Edenside Saltmarsh was thoroughly surveyed by volunteer Richard Pennington once again in 2017. Richard produced a report giving an up to date analysis of the saltmarsh, species and general health. The report is archived and distributed to SNH. The report noted an increase in sward height and flower head density due to lower grazing, SNH have been discussing grazing regime with stables. Winter grazing has increased in 17/18.

- SERG projects have been permitted to continue surveying remnant and new saltmarsh areas, this is part of, and related to the 'Saltmarsh on the Fringe' project and long running studies.
- SNH have been conducting site condition surveying in 2017 on saltmarsh elements of the SSSI. Results are now with SNH.

#### **Saltmarsh Management and Regeneration: SAC/04**

- Saltmarsh regeneration continued through 2017 as part of the ongoing and highly active Saltmarsh on the Fringe project and associated works with the polytunnel propagation programme. This and its sister projects related have been an influential driver in reserve investment, volunteer input and ecological improvement. The saltmarsh programme headed by Clare Maynard has now been adopted as part of the management programme and is included as an update in the new management plan (2018-2023).

#### **Survey Human Impact on Reserve: SAC/05**

- Regular surveys are carried out during operational visits by ranger and the impacts noted are mainly to do with sustained access to certain areas.
- GB Energy Centre Sea Wall Repair: This operation is to be carried out over the next 5 years. A section was completed in summer 2017. No major issues with damage or disturbance occurred and the contractor was very careful around the estuary.
- Ranger has monitored impacts associated with Operation Chameleon exercise. The exercise passed with minimal issues however one or two specific activities were reported to the MoD ecologist in liaison. Namely Helicopter flight paths and tracked vehicles on dunes.
- Issues with very bright lights over the woodchip facility at Motray walk have been raised with GB Energy Centre through liaison with St AUE Programme Manager and ecologist Ailsa MacKenzie.
- Ranger has fed back data and information to ecologists working for Fife Council regarding repairs to the main road bridge over the Eden at Guardbridge. Cathodes are to be placed in the river bed here and the area should be surveyed for protected species, namely Otter and Bat and impact on SSSI species, although the latter should be of minimal concern.

#### **Monitor Tipping, Waste and Tip Sites: SAC/07**

- Marine waste, especially plastics continues to be a problem throughout the reserve. Volunteers and groups have took to removing some of the waste with nearly 25% recycled. 6 clean ups were conducted, 4 on West Sands, 1 on north shore and 1 on River Eden.
- FCCT ranger service and volunteers removed large scale plastic waste by quad and trailer along the Goosepools coastline again in 2017.

#### **Manage Coble Pools: SAC/08**

- David Wallace of Kincaple has made many changes on and around the pools area and all have been very supportive of the sites wildlife. Gorse has been removed and revitalised, grazing has replaced crops in the adjacent fields and he has tidied the area significantly of debris and waste material. The ranger intends to work with David to secure the pools as a feature of his management and to assist where possible with his development of the site.
- The pools have been filling well after heavy rainfall around New Year and the seasonal flooding has never been as productive with many wader species using the site.
- Ranger is in discussion with landowner as regards re-siting the car park.
- The pools access received new gates and a minor upgrade.

### **Objective 3: Maintain and Improve the Value of the Reserve as a Breeding Area for Birds (Breeding Birds)**

#### **Breeding Bird Monitoring: BB/01**

- Breeding Bird Surveys on 6 Key Sites within LNR. Breeding Bird Surveys conducted April and May. Breeding notes included in Bird Report and forwarded on to Fife Nature.
- Ranger assisted with Fife Wader Breeding Survey 2017. Covering Goosepools and coastal Earlshall muir.

#### **Protect Ground Nesting Birds: BB/02**

- Breeding bird signs placed out at Coble Pools for April-August.

### **Objective 4: Protect, Maintain and Enhance the Structure and Function of the Estuary (Estuarine Function and Coastal Management)**

#### **Survey Effects of Coastal Erosion: ECM/01**

- As in previous years a watching brief continues on the erosion on north shore by radar tower.
- Long term monitoring by St Andrews University of the Outhead Dune Recharge area continues on behalf of Links Trust, this has been extended and integrated into the West Sands monitoring for actions relating to the dune restoration programme and to support data required by the Marine Scotland licence for sand harvesting for the dune repairs. The last of the 2000t budget was used in February to restore a large crater at the south end and install new access point flood dunes.
- Monitoring of the Outhead and West Sands dune system continues. This includes quarterly site condition surveys by ranger.
- Beach and coastline changes at Edenmouth are continuing to erode along north shore and has seen several trees falling into the sea. Notable, at HT on Spring's there is no beach present along the Reres Wood shoreline.

#### **Implement and Support Coastal Management: ECM/04**

- West Sands Dune Restoration project continues with 3 volunteer days providing 35 volunteers to promote recovery. Used Christmas trees were once again placed into the large crater by the café and backfilled with sand in February 18.
- St Andrews will feature within the 'Dynamic Coast' studies promoted by the Scot. Govt. thanks to St Andrews Links trust. This is a series of survey's, monitoring and tracking current situation and future change with a purpose of better informing coastal management within a specific cell. This will include part of the Eden estuary shoreline.

### **Objective 5: To Maintain and Increase our Knowledge and Understanding of the Physical, Biological and Human Features of the Estuary (Research)**

#### **Research Project Records: RS/03**

Research permits operational in 17/18 reporting year.

- Claire Maynard, SERG, St Andrews: *'GreenShores' Project*.
- Benjamin Taylor, SERG: *Sediment sampling and saltmarsh monitoring*.
- Adam Wyness, SERG: *Sediment Sampling*
- Fabricio Guaman, St Andrews Geoscience: *Sediment sampling*.
- S.Dawson, Dundee, *Coring Educational visit*.

- Tay Ringing Group (Robertson/Hatton et al): *Ringing selected species as Identified.*
- Sea Mammal Research Unit, St Andrews: *Harbour Seal monitoring.*
- SEPA: *Algal coverage monitoring 2017.*

#### **Biological Recording Data (Fauna): RS/01**

- All records were passed to ranger for collation by volunteers and members of the public. Dates and locations forwarded to Fife Nature.

#### **Vegetation Recording Data (Flora): RS/02**

- Volunteer Richard Pennington carried out annual vegetation survey at Outhead Grassland. This is archived and sent to SNH for record. No substantial change noted in species or sward height in 2017. However Richard believes it is beginning its direction of travel towards a more diverse and natural coastal grassland. The site continues to be grazed in 2017/2018 by Hebridean sheep.

### **Objective 6: Provide, Promote and Facilitate Responsible Public Access (Access)**

#### **Eden Estuary Centre: AC/01**

- The centre continues its main function of providing a visitor focus for the reserve and acting as a source of recording information. The centre contains a log book of all bird recordings made from there and a visitor record log, **1109** entries for 2017.
- Donations continue to be accepted at the centre and this year they have been used to provide bird food and feeders. All donations are spent within the reserve itself.
- Centre floor painted by ranger service in June.
- New window installed by Fife Council has proved problematic and is poorly fitted. Ranger is seeking a repair.

#### **Information and Interpretation: AC/05**

- Monthly newsletter circulated by email list, FCCT Facebook page and on site.
- FCCT Facebook page and is a good way to disseminate information and EELNR receives good coverage on social media.
- Monthly article placed in Bird Watching magazine, a UK wide publication.
- Eden Estuary Visitors Handbook 2018. Produced by FCCT this holds site visitor information, bird statistics, bird checklist for ticking off sightings and tide times. Priced at £1 and available from Eden Centre and other outlets, 2017 raised £68 for the reserve.

#### **Maintain Infrastructure: AC/04**

- Quarterly site condition surveys and maintenance programme took place on all access points with monthly maintenance visits May-Sep (strimming and cutting back).
- Coble Pools received a new gate and farm gate.

#### **Works/Access Permits: AC/09**

- St Andrews University Estates: Reservoir vegetation control (as per reservoir act). Also Sea Wall Repairs 2017.
- MoD Operation Chameleon 2017.
- M.Stephen, MoD, *Fence line Scrub Removal.*



- Mussel collection for personal use x1.
- St Andrews Links Trust (gabion repairs)

#### **Site Visits and Events: AC/06**

- Site visits to Outhead for the St Andrews in Bloom judges in July.
- Site visit by Fife Nature staff to review bird data collection.
- Ranger was involved with delivering Grassland Management in June course funded by the R&A and hosted by St Andrews Links Trust.
- Ranger attended Tayport Sea Eagle festival (10<sup>th</sup> Anniversary) in August to highlight the eagle presence and impact on the EELNR.
- Ranger met with Ailsa MacKenzie (GB Energy Centre Programme Manager) for a walk over relevant mutual sites early 2018. Ailsa has been very helpful and has greatly improved the comms with the energy site.
- Ranger attended Tay Estuary Forum 2017.

#### **Monitoring Angling and Bait Collection: AC6/03**

- **Bait digging** is prohibited under the Byelaws 2018. However the reserve allows a small amount of mussel collection for personal use. 4 permits are available per year for this activity, 1 permit was taken up this year. Unpermitted access for bait continues at very low levels.
- **Angling:** The reserve has continued to see a rise in fishing interest in the last 3 years which has caused some minor issues with parking and overcrowding at Coble Shore, fishing here is by permit from Eden Angling Club. No significant problems occurred this season.

### **Objective 7: Encourage Educational Use of the Reserve at all levels from Primary Schools to Universities. (Education)**

#### **Educational Visits to Reserve: ED/01.**

- Ranger led session at Outhead for SNH Natural heritage internal course
- St Andrews Sustainable Development students visited the reserve in Nov 2017 to hear about ecosystem management, natural heritage designations and local planning issues affecting the reserve.
- Abertay Environmental Science received a ranger led field trip around West Sands and into the reserve, looking at reserve management and coastal process challenges and mitigations.
- Elmwood College NC Countryside Management students visited reserve Feb 2017 to look at Bird ID and Surveying techniques.

#### **Facilitate Volunteer Input LNR: ED7/03**

- West Sands Dune Restoration Project: Once again significant volunteer effort and hours has gone into this project, co-ordinated by the ranger.
- Saltmarsh on the Fringe/ Green Shores: Clare Maynard organised volunteer days in 2017 with the installation of the polytunnel for propagation of marsh and dune plants, thanks Clare
- Bird Surveying. Gordon Shepherd has covered Outhead and Goosepools on monthly visits passing on bird info and images. Ian Cumming has conducted the monthly estuary duck counts again this year, although regrettably it will be his last. Les Hatton forwards on St Andrews Bay WeBS data. New volunteer Valentin Dupont has begun trial monthly census surveys over the Coble Pools, Outhead and is doing counts of the Fulmar along the St Andrews cliffs.

- Volunteer Wildfowling Warden 17/18, Mr Steven Watson has been extremely helpful in covering flight patrols and reporting interesting finds, incidents and issues.
- Richard Pennington gave his time and expertise to conduct vegetation surveys at Outhead grassland and Edenside saltmarsh looking at site health and change. This is ongoing at Outhead and the 2017 reports have been passed to the ranger. These have been passed to SNH for their information. Thanks Richard.
- Guardbridge Community Council: Organised a clean-up of the river saltmarsh, 8 bags taken off with 60% recycled. Thanks.

## **Objective 8: Promote and Ensure Efficient Management and Administration**

### **Liaise with MoD: MA/04**

Ranger has had discussions with MoD Army regarding Operation Chameleon during 2017/2018 and how this exercise impacts the reserve. Monitoring of the operations within and reporting back any issues. No major issues noted however helicopter flights especially Chinook do cause real bird disturbance. Some minor issues with driving on dunes at Reres Wood. It is expected that this Operation will become a regular feature.

Ranger service kindly thanks the MoD Army for renewal of base access permits.

### **Liaise with Local Reserve Landowners: MA/05**

- Discussions held regularly with David Wallace regarding the Coble pools area, all positive.

### **Liaise with Local Communities (and Police): MA/06**

- Ranger responded to enquiries from members of the public on the EELNR and West Sands during routine visits. Dog mess remains a real issue in all sites. As does dog behaviour.
- Ranger has held informal chats and discussions with local community members in Guardbridge over Motray walk area, Kincaple clean ups and various other enquiries. The local social media sites are useful for two way real time updates and information shares.
- Ranger had update with Lyndsey Kerr Wildlife Crime Officer to discuss local issues and update each other on wildlife and matters pertaining to wildlife security.

### **Liaise with Forestry Enterprise/Commission: MA/07**

- Day to day management issues were assisted greatly from co-operation from all FCS staff especially Robin Lofthouse. These included coastal path works, coastal dune restoration works, clean ups, information sharing and access assistance.
- Ranger provided data to FCS from the Heron Census at Reres Wood.
- Access to the barrier system and wider forest is greatly appreciated for survey and access by the ranger.

### **Liaise with St Andrews University Estates Guardbridge: MA/08**

- Ranger met with Ailsa MacKenzie, Programme Manager and Ecologist for GB Energy Campus. Ailsa is a very welcome addition to the site and has been most helpful with liaison. Ailsa has been invited to take up the St Andrews University membership of the Advisory Group and she has accepted this invite.
- The ranger raised an issue regarding strong night lighting over Motray chipper site. This has now been resolved, Thank you.
- Ranger held early discussions with the project group regarding proposed installation of solar panels near Motray walk.

- The University kindly agreed to allow FCCT to keep a skip at Guardbridge for the use of collecting waste from beach sites and litter collections, this skip has had to be removed due to persistent fly tipping and will now be relocated away from Guardbridge. Thank you to the University for their help and understanding.

#### **Liaise with SNH: MA/11**

- SNH were consulted and consent given for use various management operations including Spartina control and its extent post site condition survey, the Eden saltmarsh projects and research project, local development plans and military access. Regular contact is maintained on these issues and when problems arise they are dealt with quickly and sensitively.
- Thank you once again to SNH staff at Cupar in particular, Gavin Johnson, whom have been very helpful and supportive as well as offering sound advice on many matters this year including the site management plan review, site designations, operational consents, research consent, saltmarsh management and site development.
- SNH Cupar and the reserve has now a very efficient system for Permit and Consent application and approval. This is most helpful and speeds up approval times for applicants.
- Thank you to Gavin Johnson for assisting with Low Tide Counts over the West Sands area.
- Thank you to SNH staff Fife who organised and carried out, with the ranger, the Fife Breeding Wader survey 2017 over Earlsall muir.

#### **Liaise with Fife Council: MA/12**

- The administration of the EELNR Advisory Group is now the responsibility of FCCT. The wildfowling permit system remains with Fife Council for the time being, and Anne Harper is the new named contact for permits. Thank you to Anne for her work and to Kathryn Bell whom retired after many years which included administering our permit system. Thanks Kathryn.
- Ranger attends meetings of the St Andrews Sands Partnership to discuss relevant issues affecting the reserve and the beaches and coastline of St Andrews. This group has been instrumental in supporting objectives within the LNR and SSSI. Thank you to all the elected members some of whom have come out and volunteered with us.
- Ranger thanks Sarah Johnstone, Access Officer for advice and inputs over access related matters.
- Ranger has passed on site information to ecologists on the plan to repair the main A91 Guardbridge. There may be issues with Otter interference as there is a breeding holt very nearby.
- Ranger has occasional updates and discussions with Natural Heritage team, whom now will not be seconded to FCCT.

#### **Liaise with Links Trust (SALT): MA/09**

- Thank you to SALT for their great work in removing damaging trees along the Fife Coastal Path and cycle way Guardbridge to St Andrews in early 2018.
- The ranger is included as part of discussions between FCCT and SALT regarding management of the West Sands area. This looks to provide dedicated countryside staff on West Sands and Links Courses. The idea is through site staff and greater co-operation West Sands can be greatly improved as a visitor attraction and development of the sites environmental, ecological and education value is high on the priority. Updates on this development will be given through the year.

- SALT are a key project partner in the saltmarsh regeneration programmes and we are most grateful for this support which has been fantastic this year. The new polytunnel on the Links for propagation of plants is looking great and will be live early 2018. Well done to all.
- The ranger appreciates the contact with the Links Trust, in particular, Gordon Moir, and this communication has dealt with many matters this year such as Outhead grazing, dune restoration, volunteer provision, coastal management, access, biodiversity and drainage. Thank you again as always.

#### **Fife Biodiversity Partnership (LBAP): MA/24**

- The ranger attended the Partnership meetings and consulted with Fife Council Biodiversity officer through the year on matters relating to LBAP implementation and biodiversity outcomes.

#### **Revise 5 Year Management Plan: MA/21**

- The 2018-2023 EELNR Management Plan is in the process of revision. The plan will be ready and presented to the EELNR Advisory Group for sign off in September 2018.

#### **Liaise Fife Nature Records Centre: MA/25**

- All records were passed to Fife Nature for record and digitising. Efforts have been made to streamline this and reduce data handling time.
- Fife Nature assisted in the production of the annual report by collating, digitising and producing the EELNR Bird Report. This is a crucial function which greatly assists the ranger in management of the reserve and the time taken to do so. Thank you Mhiari and Lindsay.

#### **Revise and Re-Instate Byelaws: MA/26**

- The EELNR Byelaws have passed all legal scrutiny and agreement by Fife Council and are currently with Scottish Government for approval. The renewal date will hopefully be on the expiry date of 16<sup>th</sup> April 2018.

# Wildfowling Season Report 2017/2018

The Ranger has compiled this report for the Advisory Group of the Eden Estuary LNR in accordance with the requirements of the Management Plan 2013-2018.

## The Permit System

Permits for 2017/2018 Wildfowl Season (1<sup>st</sup> Sep-20<sup>th</sup> Feb) were available on application to the council. Advertisements were placed in the national shooting press and local papers advising wildfowlers of the procedure for obtaining a permit.

The permit shows the LNR boundary, shooting and sanctuary zones. Information for wildfowlers including how to complete the permit and the return policy is included.

It is stated on the permit that it must be returned within 21 days of expiry date (12<sup>th</sup> March 2018).

An information letter, a copy of the Byelaws, guidance notes and a copy of the wildfowlers newsletter accompanied each permit. The visiting wildfowler was thus informed of access, parking, permit system, general behaviour and legal aspects of shooting.

## 2017/2018 Season Weather Conditions

| Month           | Rain(mm) | Temperature (C) |     | Days with Airfrost |
|-----------------|----------|-----------------|-----|--------------------|
|                 |          | Max             | Min |                    |
| <b>Sep 2017</b> | 64       | 16              | 9   | 0                  |
| <b>Oct 2017</b> | 41       | 15              | 8   | 1                  |
| <b>Nov 2017</b> | 38       | 9               | 2   | 10                 |
| <b>Dec 2017</b> | 30       | 7               | 0   | 16                 |
| <b>Jan 2018</b> | 66       | 6               | 0   | 13                 |
| <b>Feb 2018</b> | 26       | 6               | 0   | 14                 |

## Permit Returns

| Permit Issue Area | Issued     | Returned  | %Returned  | Used      | Visits     |
|-------------------|------------|-----------|------------|-----------|------------|
| Fife              | 46         | 41        | 74%        | 19        | 205        |
| Scotland (Other)  | 43         | 34        | 79%        | 20        | 78         |
| England/Wales     | 40         | 31        | 76%        | 17        | 56         |
| <b>Total</b>      | <b>129</b> | <b>99</b> | <b>77%</b> | <b>56</b> | <b>339</b> |
| 2016/2017         | 131        | 99        | 75%        | 53        | 332        |

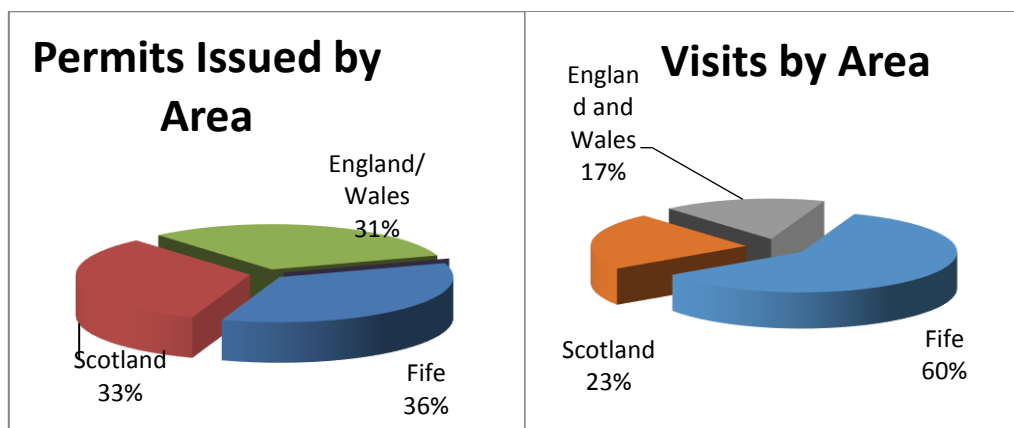
In the 2017/2018 season a total of 129 permits were issued broadly similar in issued permits from last season, this is in line with recent years. This year Tayside has been merged with 'Scotland (Other)' for simplicity in data handling. The number of used permits stayed roughly the same with again an increase in visits made.

The number of permits returned at 77% a very minor improvement on 75% from last year but much lower than 15/16 (92%). This is most unhelpful. This raises concern over a lack of respect for the permits possibly due to obtaining one with minimal intention of using it and when unused simply discarded. The failure to return is across all areas.

The highest numbers of used permits were from Scotland area and the highest number of visits made by Fife wildfowlers by a long way. Once again showing that although the EELNR is still well visited by wildfowlers from further locations the reserve is of greater interest to local wildfowlers.

### Permit Issue Geography

The spread of issues remain broadly similar to recent years with the reserve receiving most interest from Fife wildfowlers but only just, however visits made by Fife fowlers far exceed the other areas. Permit issues were broadly static this year. Both in permits issued and visits made Fife form the main interest level with Fife fowlers visits at 60% of the total this year. This is a notable drop of 10% from last season.



### Permit Use, Birds Shot and Bag Rates

| 2017/2018    | Days Available | Total visits | Birds Shot | Average Bag |
|--------------|----------------|--------------|------------|-------------|
| September    | 26             | 46           | 95         | 2           |
| October      | 26             | 40           | 33         | 0.8         |
| November     | 26             | 77           | 49         | 0.6         |
| December     | 25             | 66           | 65         | 1           |
| January      | 27             | 57           | 45         | 0.8         |
| February     | 17             | 53           | 38         | 0.7         |
| <b>Total</b> | <b>147</b>     | <b>339</b>   | <b>325</b> | <b>1</b>    |
| Last season  | 148            | 332          | 316        | 1           |

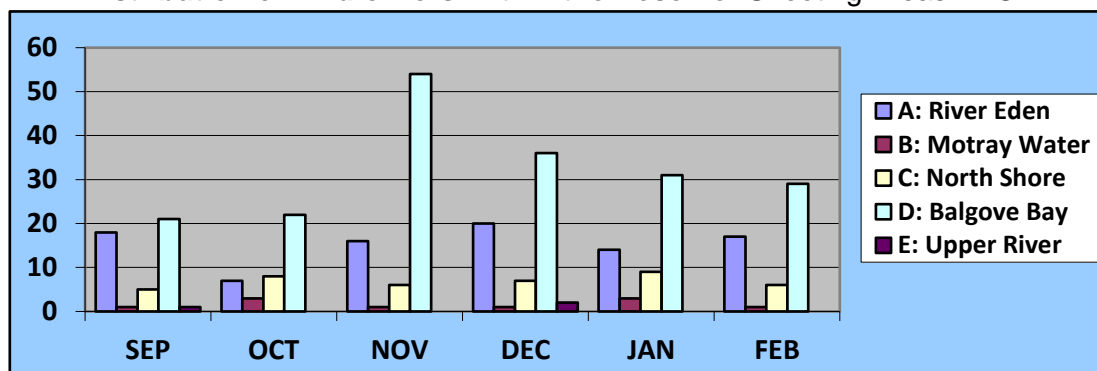
The season's average bag rate was a little less stable this year at 1 with September being very productive. Highest bag rate in September notes the taking of Canada, Wigeon and particularly Mallard in good numbers. Goose numbers not peaking until December.

## Numbers and Species of Birds Shot

| Month             | Sep       | Oct       | Nov       | Dec       | Jan       | Feb       | Total      |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| <b>Visits</b>     | 46        | 40        | 77        | 66        | 57        | 53        | <b>339</b> |
| <b>Species</b>    |           |           |           |           |           |           |            |
| Pink Footed Goose | 2         | 6         | 29        | 34        | 16        | 14        | <b>101</b> |
| Greylag Goose     | -         | -         | -         | 1         | -         | 3         | <b>4</b>   |
| Canada Goose      | 34        | -         | -         | -         | -         | -         | <b>34</b>  |
| Wigeon            | 18        | 11        | 6         | 13        | 10        | 6         | <b>64</b>  |
| Mallard           | 30        | 6         | 10        | 4         | 9         | 5         | <b>64</b>  |
| Teal              | 8         | 9         | 3         | 12        | 7         | 5         | <b>44</b>  |
| Goldeneye         | -         | -         | -         | -         | -         | 5         | <b>5</b>   |
| Pintail           | 1         | 1         | -         | -         | -         | -         | <b>2</b>   |
| Gadwall           | -         | -         | -         | -         | -         | -         | <b>0</b>   |
| Tufted Duck       | -         | -         | -         | -         | -         | -         | <b>0</b>   |
| Snipe             | -         | -         | -         | -         | -         | -         | <b>0</b>   |
| Golden Plover     | -         | -         | -         | -         | -         | -         | <b>0</b>   |
| Shoveller         | 1         | -         | -         | -         | -         | -         | <b>1</b>   |
| Woodcock          | -         | -         | -         | -         | -         | -         | <b>0</b>   |
| Woodpigeon        | 1         | -         | 1         | 1         | 3         | -         | <b>6</b>   |
| <b>Totals</b>     | <b>95</b> | <b>33</b> | <b>49</b> | <b>65</b> | <b>45</b> | <b>38</b> | <b>325</b> |

This season has seen some good bags of duck and geese. Steady numbers of Wigeon, Teal and Mallard present have presented opportunity, again Mallard features heavily in September although there were decent numbers of this species around all season. A slow start for Pinkfooted geese but picked up as the numbers increased in November. Greylag continue to drop as a bag which reflects the population status. An early bag of Canada geese reflects this species present use of the site. Very good numbers of Pintail present did not come through the bags and surprisingly neither did Teal. Very low numbers of Woodpigeon returned this year, which is good to see.

## Distribution of Wildfowlers Within the Reserve: Shooting Areas ABCD



The Balgove Bay area remains the main shooting area, however the river features across the season as a target destination. Many Mallard and some Canada were taken early Season and the late arrival of decent numbers of geese show the river as an opportunity, however the river maintains its interest throughout. The North Shore is also a steady area. Only 3 visits to the upper river which is expected due to its natural constraints.

### Monthly Counts of Key Quarry Species: Sep 17-Feb 18

| Species           | Sep | Oct  | Nov  | Dec  | Jan  | Feb  |
|-------------------|-----|------|------|------|------|------|
| Pink Footed Goose | 165 | 640  | 4750 | 3800 | 2500 | 2400 |
| Greylag Goose     | 1   | -    | -    | 27   | 8    | 9    |
| Canada Goose      | 250 | -    | -    | -    | 7    | 2    |
| Wigeon            | 56  | 394  | 302  | 424  | 373  | 233  |
| Mallard           | 34  | 42   | 79   | 97   | 50   | 61   |
| Teal              | 136 | 200  | 102  | 75   | 150  | 138  |
| Goldeneye         | -   | 19   | 6    | 5    | 13   | 13   |
| Pintail           | 3   | 5    | 21   | 54   | 43   | 39   |
| Tufted Duck       | -   | 3    | -    | -    | -    | -    |
| Snipe             | 1   | -    | 1    | -    | 1    | -    |
| Golden Plover     | 100 | 1400 | 600  | 33   | 136  | 9    |
| Shoveller         | -   | -    | -    | -    | -    | -    |
| Gadwall           | 1   | -    | -    | -    | -    | -    |

### Rangers Wildfowling Season Report

#### Season Summary

A wet and consistently cold winter this season. Geese numbers rallied in November and December however many nights late season saw few roosting within the estuary. This season felt 'quieter' but the number of visits dispute this, this may be down to local fowlers knowing where to head and shorter visit times, as well as the odd quiet geese day. There was a reasonable amount of wildfowl around including Pintail, Mallard, Teal and Wigeon. A nice set of counts for Pinkfooted through November to December. Wildfowlers were using the reserve more widespread with the river popular and the North shore steady. Sorry to say the permit returns are still at a woeful 77% which needs to be corrected. Permit returns are important. No byelaw issues this year and few notable occurrences. Great to see

#### Patrols

The wildfowling commitment and patrols were covered by the ranger and Mr Steven Watson EELNR Volunteer Warden.

Out of 292 flights, 74 (25%) were covered this season.

#### Byelaw Related Incidents:

- Local wildfowler was noted shooting on ground outside the permit area. Above MHWMOST on the lower River Eden. This was brought to his attention and after further discussions around the permit mapping and understandings of MHWMOST, no further action was deemed necessary on wildfowlers acceptance that the stance was indeed outwith the permitted shooting zone.

#### Notable Occurrences:

- Daytime Shooting:** This was monitored this year, levels again remained generally low during the season, although local wildfowlers had raised this as a concern with ranger.



- **Signage:** Placed on river stating Be Aware Shooting below MHWMOST Only. Only 3 returned visits to Area E this year.
- **Empty cartridge cases:** Found at Coble Shore on many occasions, including unspent ones.

**Sanctuary Zone Monitoring:** The north sanctuary zone has been eroding in recent years due to geomorphological change and onshore winds. During 2017/2018 significant erosion continues and the coast continues to roll back to very near 1940's line. This has led to significant change of use by waders. Geese have continued to be noted roosting out on the sandbars off Shelly Spit and Edenmouth well within the shooting zone and in reasonable numbers, presenting some sport.

#### **Volunteer Warden**

Mr Steven Watson. The warden has done another great job in support of the ranger. He passes valuable habitat and bird information to the ranger which is greatly appreciated. Once again he has demonstrated he is an asset to the reserve. Thank you.

#### **Administration**

The support given to the ranger in the management of the permit system from Kathryn Bell and Anne Harper from Fife Council has been very much appreciated. Sadly Kathryn has now retired. Thank you.

## **Eden Estuary Bird Report 2017**

**Red-throated Diver:** Recorded Sept and Nov. Peak count of 1.

**Little Grebe:** Present Jan-Mar, May and Oct-Dec. Peak count of 8 on 16<sup>th</sup> Nov and 12<sup>th</sup> Dec.

**Great Crested Grebe:** Birds recorded Mar, Apr and Oct. Peak count of 2 birds recorded on 23<sup>rd</sup> Mar.

**Slavonian Grebe:** Present Feb and Nov. Peak count of 1.

**Fulmar:** A single bird recorded on the estuary on 14<sup>th</sup> Mar.

✓ *Nesting locally on St Andrews sea cliffs.*

**Gannet:** Present Mar-May and Jul-Oct. Peak count of 47 on 17<sup>th</sup> Aug at Goosepools.

**Little Egret:** Present Jan, Mar and May-Dec. Peak count of 6 recorded on 26<sup>th</sup> Aug.

**Cormorant:** Present throughout the year. Peak count of 42 on 5<sup>th</sup> Sep at Shelly Spit.

**Grey Heron:** Present throughout the year. Peak count of 24 on 10<sup>th</sup> Aug.

✓ *Breeding: Reres Wood Heronry census Mar-May. Overall visits noted max of 20 possible nests. Final census of 18<sup>th</sup> May noted the estimate of breeding pairs was 11*

**Mute Swan:** Present throughout the year. Peak count of 40 on 27<sup>th</sup> May.

**Whooper Swan:** Present Jan-Apr and Oct-Dec. Peak count of 41 on 1<sup>st</sup> Feb.

**Pink-footed Goose:** Present Jan-Mar and Sep-Dec. Peak count of 4800 on 20<sup>th</sup> Dec.

**Greylag Goose:** Present Feb, July-Oct and Dec. Peak count of 27 on 11<sup>th</sup> Dec.

**Canada Goose:** Present Jun, Aug and Sep. Peak count of 250 on 1<sup>st</sup> Sep.

**Barnacle Goose:** 3 birds recorded on 16<sup>th</sup> Mar.

**Brent Goose (Light Bellied):** Present Jan-Apr and Oct-Dec. Peak count of 25 on 15<sup>th</sup> Jan.

**Shelduck:** Present throughout the year. Peak count of 514 on 4<sup>th</sup> Oct.

✓ *Breeding: 1 pair on River Eden on 31<sup>st</sup> May. Peak count of 19 juveniles on 19<sup>th</sup> June.*

**Wigeon:** Present throughout the year. Peak count of 398 on 12<sup>th</sup> Dec.

**Gadwall:** Peak count of 2 recorded on 15<sup>th</sup> Jan. Single birds seen on 12<sup>th</sup> Apr and 10<sup>th</sup> Dec.

**Teal:** Present throughout the year. Peak count of 200 on 30<sup>th</sup> Oct.

**Green-winged Teal:** 1 Male seen at Eden Centre on 7<sup>th</sup> May

**Mallard:** Present throughout the year. Peak count of 52 on 12<sup>th</sup> Dec.

✓ *Breeding: 1 Pair at Coble pools, Motray and River Eden by 31<sup>st</sup> May.*

**Pintail:** Present Jan-May and Sep-Dec. Peak counts of 146 on 15<sup>th</sup> Jan.

**Shoveller:** Single birds recorded on 16<sup>th</sup> and 17<sup>th</sup> Aug.

**Tufted Duck:** 3 birds recorded on 2<sup>nd</sup> Oct.

**Scaup:** Single birds seen on 23<sup>rd</sup> Oct and 6<sup>th</sup> Nov. Peak count of 23 on 16<sup>th</sup> Mar.

**Eider:** Present throughout the year. Peak count of 145 on 5<sup>th</sup> Sep.

✓ *Breeding: Peak count of 17 juveniles recorded on 2<sup>nd</sup> Aug.*

**Long-tailed Duck:** Present Feb-May and Oct-Nov. Peak count of 11 on 16<sup>th</sup> Nov.

**Common Scoter:** Present Jan, Mar, Jun, July and Oct. Peak count of 500 on 23<sup>rd</sup> Jun.

**Surf Scoter:** Present on 23<sup>rd</sup> June at Goosepools

**Goldeneye:** Present Jan-May and Nov-Dec. Peak count of 19 on 30<sup>th</sup> Oct.

**Red-breasted Merganser:** Present Jan-Apr and July-Dec. Peak count of 112 on 28<sup>th</sup> Aug.

**Goosander:** Present throughout the year except Jan. Peak count of 20 on 25<sup>th</sup> Jun.

**Marsh Harrier:** Single bird seen 19<sup>th</sup> Aug.

**Sparrowhawk:** Present throughout the year except May and July. Single birds seen regularly.

**Buzzard:** Present throughout the year. Peak count of 3 seen on 5 days.

✓ *Breeding: 1 pair with juvenile noted at Goosepools on 16<sup>th</sup> June.*

**Osprey:** Present from April to Sept. Peak count of 5 on 3 days in Aug and the 1<sup>st</sup> Sep.

**Kestrel:** Present in Jan-Mar, May, July-Oct and Dec. Single birds seen on several occasions.

**Merlin:** Single bird seen on 26<sup>th</sup> Jan.

**Peregrine:** Present throughout the year except May and July. Peak count of 2 on 14<sup>th</sup> Apr.

**White-tailed Eagle (Sea Eagle):** Recorded all months except July. Peak count of 3 on 10<sup>th</sup> Nov.

✓ *Breeding: Breeding locally. 1 juvenile fledged. 1 pair with large juvenile occasional sighting throughout late 2017.*

**Grey Partridge:** Recorded Jan, Feb and May. Peak count of 18 on 15<sup>th</sup> Jan.

✓ *Breeding: 1 pair at Coble Pools on 12<sup>th</sup> May*

**Moorhen:** Recorded in May and July. Single bird seen at Coble Pools on 19<sup>th</sup> July.

✓ *Breeding: 1 pair at Links courses pond on 2<sup>nd</sup> May*

**Oystercatcher:** Present throughout the year. Peak count of 2755 at Shelly Spit on 12<sup>th</sup> Dec.

**Avocet:** Single bird seen on 8 days late Aug and 5 days early Sept.

**Ringed Plover:** Present May-July and Sep-Dec. Peak counts of 115 on 18<sup>th</sup> May and 5<sup>th</sup> Sept.

**Golden Plover:** Present Aug-Dec. Peak count of 1400 on 20<sup>th</sup> Oct.

**Grey Plover:** Present Feb-Apr, Aug and Oct-Dec. Peak count of 333 at Balgove on 10<sup>th</sup> Mar.

**Lapwing:** Present Jan-Mar, May, July-Dec. Peak counts of 700 on 15<sup>th</sup> Sept.

✓ *Breeding: 1 pair at Goosepools on 18<sup>th</sup> May*

**Knot:** Present throughout the year except May & June. Peak counts of 2500 on 3<sup>rd</sup> and 14<sup>th</sup> Feb and 10<sup>th</sup> Mar.

**Sanderling:** Present Feb, Sept, Nov and Dec. Peak count of 128 at Shelley Spit on 12<sup>th</sup> Dec.

**Little Stint:** Recorded Sept and Oct. Peak count of 5 on 2<sup>nd</sup> Oct

**Curlew Sandpiper:** Present Sept and Oct. Single birds seen on 27<sup>th</sup>, 28<sup>th</sup> Sept and 2<sup>nd</sup> Oct.

**Dunlin:** Present throughout the year except June. Peak count of 2266 on 16<sup>th</sup> Nov.

**Ruff:** Present Aug-Oct. Peak count of 45 on 30<sup>th</sup> Sept.

**Snipe:** Recorded in Jan and Aug. Peak count of 3 on 15<sup>th</sup> Aug.

**Black-tailed Godwit:** Present throughout the year except June. Peak count of 330 on 7<sup>th</sup> Sept.

**Bar-tailed Godwit:** Present throughout the year except June. Peak count of 245 at Shelly Spit on 10<sup>th</sup> Mar.

**Whimbrel:** Single birds on 7<sup>th</sup> May and 12<sup>th</sup> Oct.

**Curlew:** Present throughout the year. Peak count of 365 on 12<sup>th</sup> Jan.

**Spotted Redshank:** Present in Oct and on the 23<sup>rd</sup> Nov. Peak count of 2 on 25<sup>th</sup> Oct.

**Redshank:** Present throughout the year except June. Peak count of 1475 on 12<sup>th</sup> Dec.

**Greenshank:** Present throughout the year except May and June. Peak count of 10 on 2<sup>nd</sup> Oct.

**Green Sandpiper:** Single bird seen on 1<sup>st</sup> Nov.

**Common Sandpiper:** Present June-Oct. Peak count of 3 on 13<sup>th</sup> Oct.

**Turnstone:** Single birds recorded on 19<sup>th</sup> Jan and 26<sup>th</sup> July.

**Arctic Skua:** Recorded on the 17<sup>th</sup> Aug. 1 bird at Goosepools and 2 birds at Eden Centre

**Mediterranean Gull:** Single bird seen on 24<sup>th</sup> Oct.

**Black-headed Gull:** Present throughout the year. Peak count of 20 on 6<sup>th</sup> Feb.

**Common Gull:** Present throughout the year. Peak count of 10 on 6<sup>th</sup> Feb.

**LBB Gull:** Present Jan, Mar-Sept. Peak count of 15 on 21<sup>st</sup> Mar.

**Herring Gull:** Present throughout the year. Peak count of 32 on 9<sup>th</sup> May.

**GBB Gull:** Present throughout the year. Peak counts of 4 on 14<sup>th</sup> Mar and 19<sup>th</sup> Dec.

**Kittiwake:** 6 birds recorded on 9<sup>th</sup> Aug.

**Sandwich Tern:** Present June-Sept. Peak count of 106 on 17<sup>th</sup> Aug at Goosepools.

**Common Tern:** Present in Aug. Peak count of 5 on 17<sup>th</sup> at Shelley Spit.

**Arctic Tern:** Present in Sept. Peak count of 88 on 4<sup>th</sup> Sept at Goosepools.

**Little Tern:** 5 birds seen on 30<sup>th</sup> May.

**Razorbill:** 2 birds seen on 4<sup>th</sup> Oct at Goosepools.

**Stock Dove:** Present June-Sept. Peak count of 4 on 7<sup>th</sup> June.

**Woodpigeon:** Present throughout the year with a peak count of 12 on 21<sup>st</sup> Dec.

✓ *Breeding: across the reserve.*

**Collared Dove:** Present throughout the year except May and Dec. Peak count of 3 on 18<sup>th</sup> Jan.

**Swift:** Recorded in Jun-July. Peak count of 75 on 17<sup>th</sup> July.

**Kingfisher:** Recorded Mar, Apr and July-Nov. Peak count of 2 on 20<sup>th</sup> Aug.

**Green Woodpecker:** Single bird recorded on 23<sup>rd</sup> Nov at Goosepools.

**Great Spotted Woodpecker:** Recorded most months except May and June. Peak count of 3 on 14<sup>th</sup> Dec

**Skylark:** Recorded May and June. Peak count of 12 on 7<sup>th</sup> and 13<sup>th</sup> June.

✓ *Breeding: Across reserve with peak territory count of 23 at Goosepools on 18<sup>th</sup> May. 6 juveniles at Outhead on 12<sup>th</sup> May.*

**Sand Martin:** Recorded Apr-Aug. Peak count of 12 on 12<sup>th</sup> June and 28<sup>th</sup> Aug.

✓ *Breeding: 2 birds carrying food/materials on 13<sup>th</sup> June at Outhead.*

**Swallow:** Recorded Apr-Sep. Peak count of 6 on 30<sup>th</sup> Aug.

**House Martin:** Recorded May-Sept. Peak counts of 5 on 19<sup>th</sup> and 22<sup>nd</sup> May.

**Meadow Pipit:** Recorded May, June and Aug. Peak count of 7 on 13<sup>th</sup> June at Outhead.

✓ *Breeding: Across the reserve with peak territory display of 23 on 18<sup>th</sup> May at Goosepools, Peak count of 5 juveniles on 13<sup>th</sup> June at Outhead.*

**Grey Wagtail:** Single birds recorded on 10<sup>th</sup> Sept, 29<sup>th</sup> Nov and 14<sup>th</sup> Dec.

**Pied Wagtail:** Recorded Mar-Aug and Oct. Peak count of 10 on 13<sup>th</sup> Oct.

✓ *Breeding: 1 pair at Coble Pools on 12<sup>th</sup> May.*

**Yellow Wagtail:** Present on 19<sup>th</sup> Aug

**Wren:** Recorded Jan and Mar-Aug. Peak count of 5 on 18<sup>th</sup> Apr.

✓ *Breeding: Across reserve with peak singing of 5 at Motray Water on 18<sup>th</sup> Apr*

**Duncock:** Present throughout the year with peak counts of 3 on 18<sup>th</sup> Apr, 21<sup>st</sup> July and 14<sup>th</sup> Dec.

✓ *Breeding: Across the reserve with peak singing count of 3 at Motray Water on 18<sup>th</sup> Apr.*

**Robin:** Present throughout the year with peak count of 6 on 18<sup>th</sup> Apr.

✓ *Breeding: Across the reserve with 3 pairs at Motray water on 18<sup>th</sup> Apr.*

**Whinchat:** A single bird seen on 8<sup>th</sup> Aug.

**Stonechat:** Present Jan, Apr, Jun-Aug and Oct. Peak count of 8 on 24<sup>th</sup> Oct at West Sands.

✓ *Breeding: 3 pairs with 4 juveniles at Outhead on 20<sup>th</sup> July. 2 pairs with 2 juveniles at Goosepools on 16<sup>th</sup> June.*

**Wheatear:** Single bird seen 20<sup>th</sup> Apr and 1 pair recorded at Outhead on 12<sup>th</sup> May.

**Blackbird:** Present all months with a peak count of 9 on 17<sup>th</sup> Aug.

✓ *Breeding: Across reserve. 5 pairs at Tip Point and Motray Water on 12<sup>th</sup> May.*

**Fieldfare:** A single bird seen on 12<sup>th</sup> Dec at St Andrews Links courses

**Song Thrush:** Recorded Mar-July. Mostly single birds.

✓ *Breeding: 1 pair at Motray Water on 12<sup>th</sup> May, 1 singing at Coble Pools on 12<sup>th</sup> May and 2 singing at River Eden on 31<sup>st</sup> May.*

**Redwing:** Single birds recorded on 12<sup>th</sup> Jan and 29<sup>th</sup> Nov.

**Mistle Thrush:** Recorded in Jan and Oct-Dec. Peak count of 4 on 12<sup>th</sup> Jan.

**Sedge Warbler:**

✓ *Breeding: 2 singing at Tip Point and 11 singing at Motray Water on 12<sup>th</sup> May. 5 singing at Goosepools on 18<sup>th</sup> May, 1 nesting pair at Outhead on 30<sup>th</sup> May and 19 singing at River Eden on 31<sup>st</sup> May.*

**Whitethroat:**

✓ *Breeding: 1 singing at Coble Pools on 12<sup>th</sup> May, 1 singing at Goosepools on 18<sup>th</sup> May and 1 singing at River Eden on 31<sup>st</sup> May.*

**Blackcap:** Present Apr, May and Sept. 8 single birds

✓ *Breeding: 1 singing at Motray Water on 11<sup>th</sup> May, 2 singing at Tip Point on 12<sup>th</sup> May, 3 singing at the Eden Centre on 16<sup>th</sup> May and 1 singing at River Eden on 31<sup>st</sup> May*

**Chiffchaff:** Present Apr and May.

✓ *Breeding: 3 singing at Motray Water on 18<sup>th</sup> Apr, 4 singing at Tip Point on 18<sup>th</sup> Apr with 1 singing there on 12<sup>th</sup> May.*

**Willow Warbler:** Recorded in May and Aug.

✓ *Breeding: Across the reserve. Peak of 5 singing at River Eden on 31<sup>st</sup> May*

**Long-tailed Tit:** Recorded Feb, Apr, Sept and Nov. Peak count of 8 on 15<sup>th</sup> Nov.

**Coal Tit:** Recorded most months except Oct. Peak count included in breeding below.

✓ *Breeding: 3 singing at Goosepools on 18<sup>th</sup> May.*

**Blue Tit:** Present throughout the year. Peak count of 12 on 2<sup>nd</sup> Mar.

✓ *Breeding: Across the reserve with 3 pairs and 11 juveniles at the Eden Centre on 23<sup>rd</sup> June*

**Great Tit:** Present throughout the year. Peak counts of 6 on 23<sup>rd</sup> Feb and 2<sup>nd</sup> Mar.

✓ *Breeding: Breeding across the reserve with peak juvenile count at Eden centre feeders of 7 on 1<sup>st</sup> June.*

**Treecreeper:** Single bird seen on 27<sup>th</sup> Oct and present on 14<sup>th</sup> Nov.

**Magpie:** Recorded Feb-July, Sept, Nov and Dec. Peak count of 2.

✓ *Breeding: 1 pair at Tip Point on 12<sup>th</sup> May*

**Carriion Crow:** Present most months except Aug. Peak counts of 6 on 25<sup>th</sup> June and 21<sup>st</sup> July.

✓ *Breeding: Across the reserve, primarily River Eden and Motray.*

**Jackdaw:** Recorded on the 11<sup>th</sup>, 12<sup>th</sup> and 28<sup>th</sup> June.

**Raven:** 3 birds seen at Goosepools on 17<sup>th</sup> July.

**Starling:** Recorded Mar, May-July and Dec. Peak count included in breeding info.

✓ *Breeding: 30 juveniles at Goosepools on 20<sup>th</sup> July.*

**House Sparrow:** Recorded Apr-July and Sept. Peak counts of 5 on 19<sup>th</sup> Apr and 5<sup>th</sup> May.

✓ *Breeding: 2 pairs and 4 juveniles at Motray Water on 12<sup>th</sup> May.*

**Tree Sparrow:** Present throughout the year. Peak count of 13 on 14<sup>th</sup> Dec

✓ *Breeding: 1 pair in box at Eden centre with 2 juveniles on 11<sup>th</sup> June.*

**Chaffinch:** Present throughout the year. Peak count of 12 on 14<sup>th</sup> Dec.

✓ *Breeding: Across all sites, peak count of juveniles noted as 4 on 2<sup>nd</sup> July at Eden centre.*

**Greenfinch:** Present throughout the year. Peak count of 31 on 23<sup>rd</sup> Nov at Goosepools.

✓ *Breeding: 1 singing at Tip Point on 12<sup>th</sup> May, 6 juveniles on 10<sup>th</sup> July at Eden Centre*

**Goldfinch:** Mar, Apr, Jun-Dec. Peak count of circa 40 on 22<sup>nd</sup> Sept.

✓ *Breeding: 1 pair at Tip Point on 18<sup>th</sup> Apr. 1 pair with 2 juveniles at Goosepools on 16<sup>th</sup> June*

**Siskin:** 3 birds recorded on 12<sup>th</sup> Oct and 24<sup>th</sup> Nov.

**Linnet:** Recorded Apr-Aug and Oct-Nov. Peak count of 70 on 24<sup>th</sup> Oct.

✓ *Breeding: 6 pairs at Coble pools on 12<sup>th</sup> May, 6 pairs with 11 juveniles at Outhead on 12<sup>th</sup> May, 15 pairs at Goosepools on 18<sup>th</sup> May and 3 pairs at River Eden on 31<sup>st</sup> May.*

**Crossbill:** Single bird seen on 14<sup>th</sup> Nov.

**Bullfinch:** Recorded Jan-Mar and Dec. Peak count of 4 on 9<sup>th</sup> Mar at Reres Wood.

**Yellowhammer:**

✓ *Breeding: 1 singing at Tip Point on 18<sup>th</sup> Apr, 3 singing at Motray water on 12<sup>th</sup> May and 2 singing at River Eden on 31<sup>st</sup> May*

**Reed Bunting:** Recorded Jan and Apr-June. Peak count of 10 (5 pairs) on 13<sup>th</sup> June see below.

✓ *Breeding: 9 singing on River Eden on 31<sup>st</sup> May, 5 pairs at Outhead on 13<sup>th</sup> June and 4 pairs at Goosepools on 16<sup>th</sup> June*

## Monthly Peak Counts of SSSI Selected Species 2017

| Species                  | Jan  | Feb  | Mar  | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov  | Dec  |
|--------------------------|------|------|------|-----|-----|-----|-----|-----|-----|-----|------|------|
| Shelduck                 | 320  | 277  | 285  | 141 | 73  | 80  | 13  | 36  | 112 | 514 | 366  | 333  |
| Scaup                    | 97   | -    | 23   | -   | -   | -   | -   | -   | -   | 90  | 101  | 44   |
| Common Scoter            | 2019 | -    | 167  | -   | -   | 500 | 115 | -   | -   | 490 | 750  | 1540 |
| Velvet Scoter            | 5    | -    | -    | -   | -   | -   | -   | -   | -   | -   | -    | -    |
| R B Merganser            | 7    | 6    | 6    | 27  | -   | -   | 8   | 112 | 56  | 22  | 8    | 7    |
| Oystercatcher            | 730  | 250  | 796  | 440 | 124 | 57  | 322 | 389 | 795 | 533 | 959  | 2895 |
| Ringed Plover            | -    | -    | -    | -   | 68  | 12  | 4   | -   | 115 | 13  | -    | 17   |
| Grey Plover              | -    | 50   | 333  | 26  | -   | -   | -   | 23  | -   | 15  | 17   | 80   |
| Black tailed Godwit      | 78   | 150  | 200  | 104 | 30  | -   | 5   | 64  | 330 | 127 | 135  | 125  |
| Bar tailed Godwit        | 29   | 40   | 245  | 17  | 11  | -   | 3   | 2   | 7   | 2   | 19   | 132  |
| Redshank                 | 122  | 109  | 1032 | 170 | 8   | -   | 200 | 500 | 450 | 450 | 1161 | 1724 |
| <b><u>Grey Geese</u></b> |      |      |      |     |     |     |     |     |     |     |      |      |
| Greylag goose            | -    | 10   | -    | -   | -   | -   | 1   | 1   | 1   | -   | -    | 27   |
| Pinkfooted goose         | 3310 | 2300 | 750  | 655 | -   | -   | -   | -   | 165 | 640 | 4750 | 4800 |

( - No records.)

## EELNR Project Action Plan      1 Apr 2018 - 31 Mar 2019

| <b>Objective 1: Maintain and Enhance the Integrity of the Reserve to Support Viable Populations of Wildfowl and Waders. (SPA. Bird Populations)</b>  |         |  |   |
|--|---------|--|---|
| Priority   | Project |  | Qualifying Task   |
| 1  | SPA/01  |  | Site Bird Surveys (SPA/SSSI)                                  |
| 1  | SPA/02  |  | Monitor Non-Breeding birds                                    |
| 3  | SPA/04  |  | Beached Bird Survey   |
| <b>Objective 2: Protect, Maintain and Improve the Structure and Function of Key Habitats and Related Species within the Reserve. (SAC. Habitats)</b> |         |  |   |
| 3  | SAC/03  |  | Monitor Saltmarsh   |
| 3  | SAC/04  |  | Saltmarsh Management and Regeneration                         |
| 1  | SAC/05  |  | Survey Human Impact on Reserve                                |
| 2  | SAC/07  |  | Monitor Tipping and Tip Sites                                 |
| 1  | SAC/02  |  | Survey Effects of Coastal Erosion                             |
| 1  | SAC/10  |  | Implement and Support Coastal Management                      |
| 1  | SAC/08  |  | Manage Coble Pools Wetland                                    |
| 1  | SAC/09  |  | Control Invasive Non Native Species (INNS) including Spartina |
| <b>Objective 3: Maintain and Improve the Value of the Reserve as a Breeding Area for Birds (Breeding Birds)</b>                                      |         |  |   |
| 1  | BB/01   |  | Monitor Breeding Birds  |
| 1  | BB/02   |  | Protect Ground Nesting Species                                |
| 1  | BB/03   |  | Heronry Census  |



| <b>Objective 4: To Maintain and Increase our Knowledge and Understanding of the Physical, Biological and Human Features of the Estuary (Research)</b> |       |  |   |
|---|-------|--|---|
| 3   | RS/01 |  | Biological Recording Data (LNR Species: Fauna)              |
| 3   | RS/02 |  | Collect Vegetation Data (LNR Species: Flora)                |
| 1   | RS/03 |  | Research Project Permits and Records                        |
| 3   | RS/04 |  | Research Liaison  |
| <b>Objective 5: Provide, Promote and Facilitate Responsible Public Access. (Access)</b>   |       |  |   |
| 1   | AC/01 |  | Eden Estuary Centre (Manage and Maintain)                   |
| 1   | AC/04 |  | Maintain Infrastructure and Access Points                   |
| 1   | AC/05 |  | Information and Interpretation                              |
| 3   | AC/06 |  | Guided Visits and Events                                    |
| 1   | AC/09 |  | Operate Works/Access Permit System                          |
| 1   | AC/10 |  | Operate Wildfowling Permit System                           |
| 2   | AC/03 |  | Monitor Angling and Bait Collection                         |
| <b>Objective 6: Encourage Educational Use of the Reserve at all levels from Primary Schools to Universities (Education)</b>                           |       |  |   |
| 2   | ED/01 |  | Educational Visits  |
| 3   | ED/02 |  | Illustrated Talks and Presentations                         |
| 1   | ED/03 |  | Promote/Facilitate Volunteer Input LNR                      |
| <b>Objective 7: Promote and Ensure Efficient Management and Administration</b>  |       |  |   |
| 1   | MA/02 |  | General Enquiries   |
| 1   | MA/04 |  | Liaise with Ministry of Defence (Army)                      |
| 1   | MA/05 |  | Liaise with Reserve Landowners                              |
| 1   | MA/06 |  | Liaise with Local Communities                               |
| 1   | MA/07 |  | Liaise with Forestry Commission Scotland                    |
| 1   | MA/08 |  | Liaise with St Andrews University Estates                   |
| 1   | MA/09 |  | Liaise with Links Trust                                     |
| 1   | MA/10 |  | Liaise with SEPA and Environmental Health                   |
| 1   | MA/11 |  | Liaise with SNH   |
| 1   | MA/12 |  | Liaise with Fife Council                                    |
| 1   | MA/19 |  | Prepare Wildfowling Report                                  |
| 1   | MA/20 |  | Prepare Annual Ranger Report                                |
| 1   | MA/22 |  | Attend EELNR Advisory Group Meetings                        |
| 1   | MA/25 |  | Liaise Fife Nature Records Centre                           |
| 3   | MA/24 |  | Fife Biodiversity Partnership (LBAP)                        |
| 1   | MA/21 |  | Revise 5 year Management Plan (for Sep 2018)                |
| 1   | MA/26 |  | Revise and Re-instate Byelaws (16 <sup>th</sup> April 2018) |

Priority 1- Carry out in reporting year.

Priority 2- Carry out if time and resources allow.

Priority 3- Occasional projects/ external lead/ guide and advice