

The Great Grid Upgrade

Sea Link

Sea Link

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1. Wintering Bird Survey Report 2023-2024

1.1 Introduction

Background

- 1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the southeast and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400 kV overhead line close to Richborough in Kent.
- 1.1.2 The purpose of this document is to:
- Detail the results of the wintering bird surveys of the Kent Onshore Scheme conducted in the winter season of 2023 to 2024.
 - Detail the results of the wintering bird surveys conducted in 2022, 2023 and 2024.
 - Identify potential ecological constraints associated with wintering birds for incorporation into the **Application Document 6.2.2.2 Part 3 Kent Chapter 2 Ecology and Biodiversity** for the Kent Onshore Scheme and the associated **Application Document 6.6 Habitats Regulations Assessment Report**.
- 1.1.3 Details of avoidance, mitigation, compensation and enhancement measures relating to wintering birds are not included in this report and are instead reported within **Application Document 6.2.2.2 Part 3 Kent Chapter 2 Ecology and Biodiversity**.
- 1.1.4 This appendix should be read in conjunction with the following figures:
- **Application Document 6.4.3.2.C Kent Wintering Birds 2023-2024**.

Scope

- 1.1.5 The survey areas are shown in **Application Document 6.4.3.2.A.1 Kent Phase 1 Survey Results**. This report aims to confirm the presence of wintering bird territories within the Kent Onshore Scheme Order Limits through transect surveys conducted along the routes indicated in **Application Document 6.4.3.2.C.1 Kent Wintering Bird Day Time Transect Routes (2023-2024)** and **Application Document 6.4.3.2.C.8 Kent Wintering Bird Nocturnal Transect Routes (2023-2024)**. The findings of wintering bird survey work within the Kent Onshore Scheme Order Limits have informed ecological best practice and mitigation as required, in order to ensure that development of the Proposed Project does not adversely affect wintering birds.
- 1.1.6 The Kent Onshore Scheme comprises four core locations. These areas are also divided into individual 'parcels', which have been referenced within this report and are as follows:

- Pegwell Bay landfall (east of Thanet Coastal path) – field parcel 379;
- Eastern landfall route – between the Proposed Minster Converter Station and Minster Substation to the west and landfall area to the east – field parcels 238, 328, 336, 346 and 360. Note that an area of underground trenchless installation is between Pegwell Bay and the eastern most site compound;
- Proposed Minster Converter Station and Substation (adjacent fields east of the railway to the west) – field parcels 244 and 238; and
- OHL route corridor (southwest of converter station fields to north) – field parcels 232, 233 and 236.

- 1.1.7 As a result, the WeBS surveys targeted Pegwell Bay while inland sampling transects were devised (based on land access available at the time) to cover and sample all major habitat types that are potentially to be subject to above-ground works and, as a minimum, to scan all large field expanses from a distance for bird aggregations.
- 1.1.8 The following key geographical areas are referenced to assist in discussing and interpreting survey results for the Survey Area, including bird distribution later in this report.
- 1.1.9 Pegwell Bay landfall (area to the east of Thanet Coastal path) which includes;
- River Stour and River Stour ‘mouth’ – located at the southern extent of Pegwell Bay.
 - Thanet Coastal Path Public Right of Way (PRoW), which broadly follows the foreshore.
 - The ‘Coastal Lagoon’ – located within the centre of the option area and adjacent to the Thanet Coastal Path with Sandwich Road running parallel.
- 1.1.10 Eastern landfall route which includes.
- Ebbsfleet Lane – parallel to the A256 and allows access/views of the arable fields to the north of Stonelees Golf Centre.
- 1.1.11 Proposed Minster Converter Station and Substation area which includes:
- The A256/Richborough Way, which separates the converter station from the remainder of the inland route to the east.
 - Brook Lane, a road access and PRoW through the northern half of this area.
 - Weatherlees Hill Water Treatment Works (the ‘Sewage Works’), located to the immediate south of the converter station.
 - Fishing lakes, located in the northern portion of this area.
- 1.1.12 Overhead line corridor, which includes:
- River Stour canal. A tributary of the Stour, running broadly west to east through the centre of this area and with a PRoW parallel to its northern bank.
 - Railway line (Minster to Sandwich), which separates this overhead line area from the proposed Minster Converter Station.
 - Marsh Farm Road, which is the only immediate vehicle access to this area, and which has a water treatment facility at its southern termination.

1.2 Bird Legislation, Policy and Guidance

- 1.2.1 The legislation, policy and guidance detailed within this section have been used to define the 'notable' bird species, which are the focus of this report due to their inclusion in relevant legislation, policy or guidance.

Legislation

Conservation of Habitats and Species Regulations 2017 (as amended) / Directive on the Conservation of Wild Birds 2009

- 1.2.2 A number of bird species recorded in the UK (including those that are resident, overwintering and migratory) are protected at a European level under the European Commission (EC) Directive on the Conservation of Wild Birds 2009 (2009/147/EC). The Directive applies to 193 bird species or sub-species, which are:
- in danger of extinction;
 - rare, or have restricted local distribution;
 - vulnerable to specific changes in their habitat; or
 - in need of particular attention for reasons of the specific nature of their habitat.
- 1.2.3 These species are afforded enhanced legal protection and EU member states have a responsibility to maintain the populations of these species at a level that corresponds to their ecological, scientific and cultural requirements (Article 2). This Directive was transposed into English law through the Conservation of Habitats and Species Regulations 2017 (as amended).
- 1.2.4 Species listed on Annex 1 of the Directive are those for which the UK Government is required to take special conservation measures, including the designation of land as Special Protection Areas (SPAs). These sites are automatically included within the Emerald network under the Bern Convention (formerly the Natura 2000 network within the UK); a network of core breeding and resting sites that are protected for rare and threatened species.
- 1.2.5 While the UK is no longer a member of the European Union (EU), EU legislation which applied directly or indirectly to the UK before 11pm. on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.
- 1.2.6 The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the Conservation of Habitats and Species Regulations 2017 (referred to as the 2017 Regulations) so that they operate effectively. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

Wildlife and Countryside Act 1981 (as amended)

- 1.2.7 All active bird nests, eggs and young are protected from intentional and reckless destruction by the Wildlife and Countryside Act 1981 (as amended).
- 1.2.8 The Act prohibits the intentional killing, injuring or taking of wild birds and, during the breeding season, the taking, damaging or destroying of eggs or nests (whether the nest is in use or being built). In addition to this general protection, certain rare, endangered,

declining or vulnerable species are afforded special protection under Schedule 1 of the Act.

- 1.2.9 Bird species listed on Schedule 1 are additionally protected against disturbance while nesting. This means it is also an offence to disturb any Schedule 1 listed nesting birds or their young during the breeding season whilst they are occupying a nest site. This includes causing the parent birds or fledglings apparent stress, and/or which may lead to the parents abandoning their nests or young.

Natural Environment and Rural Communities Act 2006 (as amended)

- 1.2.10 In addition to the above legislation, 49 bird species are listed as being Species of Principal Importance for conservation in England under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006. These species are a material consideration during the planning process.
- 1.2.11 The list of 49 'priority species' comprises those identified as requiring action under the UK Biodiversity Action Plan (UKBAP), which continue to be species of conservation priority under the UK Post-2010 Biodiversity Framework (which succeeded the UKBAP in July 2012).

Regional / Local Planning and Guidance

Birds of Conservation Concern (BoCC)

- 1.2.12 The Birds of Conservation Concern (BoCC) Red, Amber and Green lists (Stanbury, et al., 2021) assigns UK species to those categories in accordance with criteria that are based on their population status and stability.
- 1.2.13 Where these species are present at a site, their conservation status should be considered in determining the likely impacts of a proposed development.
- 1.2.14 Red status species are those of highest conservation concern, and green status species are those of low or no conservation concern. Amber status species are those of some conservation concern.
- 1.2.15 The BoCC assigns bird species red and amber status based on a set of criteria summarised in the following table.

Table 1.1 Birds of Conservation Concern (BoCC) red and amber list criteria

Criteria	BoCC Status Code	Description
Red list	HD	Historical decline in breeding population.
	BDp ¹ / BDp ²	Severe breeding population decline over 25 years / longer term.
	BDr ¹ / BDr ²	Severe breeding range decline over 25 years / longer term.
	WDp ¹ / WDp ²	Severe non-breeding population decline over 25 years / longer term.

Criteria	BoCC Status Code	Description
Amber list	WDr ¹	Severe non-breeding range decline over 25 years.
	IUCN	Globally threatened – CR (critically endangered) EN (endangered) VU (vulnerable).
	BDMp ¹ / BDMp ²	Moderate breeding population decline over 25 years / longer term.
	WDMp ¹ / WDMp ²	Moderate non-breeding population decline over 25 years / longer term.
	BDMr ¹ / BDMr ²	Moderate breeding range decline over 25 years / longer term.
	WDMr ¹	Moderate non-breeding range decline over 25 years.
	ERLOB	Threatened in Europe – CR (critically endangered) EN (endangered) VU (vulnerable).
	HDrec	Historical decline in breeding population in recovery.
	BR / WR	Breeding rarity / non-breeding rarity.
	BL / WL	Breeding localisation / non-breeding localisation.
	BI / WI	Breeding bird of international importance / non-breeding bird of international importance.
Green	N/A	Green list species are not of conservation concern and include all other commonly occurring birds in the UK.
Other	N/A	Non-native species (e.g. Canada goose (<i>Branta canadensis</i>), feral pigeon (<i>Columba livia domestica</i>)) are not afforded Red, Amber or Green list status.

1.2.16 Although it does not offer any legal protection, BoCC 5 (Stanbury, et al., 2021) provides guidance on the conservation status of UK bird species. Thus, it can be used to assess the ecological importance of bird populations and the habitats that they rely on, particularly at a local level.

1.2.17 These lists confer no legal status. However, they are useful when assessing the significance of predicted impacts and determining the level of mitigation that may be required when birds are affected by development.

Kent Local Wildlife Site Selection Criteria

1.2.18 In Kent an individual Local Wildlife Site (LWS) can be selected for birds if it meets the criteria within Kent LWS Selection Criteria (Kent Wildlife Trust, 2022). These guidelines are used as an informative when assessing of the geographic level of importance of a survey site for birds, especially when determining whether a site falls within Local or County importance parameters (noting that meeting LWS criteria does not automatically result in a site being assigned County level importance). These guidelines state that the criteria for selection of LWS applies to birds as follows:

“Birds

133) A set of criteria has been established by Kent Ornithological Society, as the relevant expert organisation, for the selection of Wildlife Sites on the basis of their bird fauna (which is here taken to mean the naturally occurring populations of wild birds on a site). The criteria are based on established criteria for the selection of Sites of Special Scientific Interest, and on the Kent Red Data Book.

134) The criteria are intended to be applied to areas of habitat which are more-or-less discrete and homogenous. For example, a large block of woodland should not be treated as part of the same site as a large block of farmland. However, an intimately mixed area of small fields, hedges and small woods may be treated as a unit, as may the mix of scrub, swamp, marsh and open water vegetation associated with flood plains or around abandoned quarries.

135) The criteria have been designed to recognise

- a) The rarity of certain breeding and wintering bird species;*
- b) Birds which may be considered vulnerable because their populations are in decline;*
- c) Birds which are vulnerable because of their colonial nesting habitats;*
- d) Birds which may be considered vulnerable because their non-breeding populations are concentrated in a small number of sites; and*
- e) Sites of importance for the presence of a diversity of species.*

A site should be selected as a Local Wildlife Site if it can be considered as a single, identifiable unit (as explained above) in terms of its bird fauna and where:

- It is occupied regularly by at least 2.5% of the county population of any one or more bird species, based on the most recent and authoritative data;*

OR

- It is occupied regularly as a breeding site by species with a Kent population of 50 or fewer territories;*

OR

- It holds ten or more Kent Red Data Book 2 (KRDB2) species in the breeding season;*

OR

- It holds three or more Kent Red Data Book 3 (KRDB3) species at the appropriate time of year (normally this should not include a combination of breeding and wintering species);*

OR

- It holds one of the five largest colonies of colonial seabirds (with the exception of herring gull and black-headed gull), grey heron, little egret or sand martin;*

OR

- It is occupied regularly by 5% or more of the county population of any one or more species in non-breeding seasons, based on the most recent and authoritative data;*

OR

• *It has been recorded as being regularly used in recent years by at least 50 breeding bird species;*

OR

• *It has been recorded as being regularly used in recent years by at least 60 wintering bird species;*

OR

• *It has been recorded as being regularly used in recent years by at least 100 passage bird species."*

1.3 Methodology

Zone of Influence

- 1.3.1 The potential impact(s) of a development are not always limited to the boundaries of the site concerned. A development may also have the potential to result in impacts upon ecologically important sites, habitats or species that are located beyond the site boundaries.
- 1.3.2 The area over which a development may impact ecologically important features is known as the Zone of Influence (ZOI). The ZOI is determined by the source/type of impact, the potential pathway(s) for that impact and the location and sensitivity of the ecologically important feature(s) beyond the boundary.

Survey and Study Areas

- 1.3.3 The ZOI was used to establish the required extents of the wintering bird Survey and Study Area.
- 1.3.4 The Survey Area included all suitable on-site habitat and relevant adjacent off-site habitats (e.g. boundary scrub, treelines and hedgerows) up to 1 km from the Order Limits.
- 1.3.5 The Study Area included the Order Limits, protected species records within 2 km of the Order Limits, protected sites within 10 km of the Order Limits and RSPB records within 500 m of the Order Limits.

Desk Study

- 1.3.6 Results of dedicated biological records data and information from local stakeholders were reviewed as part of this exercise and summarised in the ES.
- 1.3.7 A MAGIC.gov.uk search was also conducted for any statutory areas designated for birds within 10 km of the site (Department for Environment, Food and Rural Affairs, 2024). This was used to review designated site citations for any bird species of particular relevance to the site (i.e., where functional linkage to designated sites of international importance could occur).
- 1.3.8 Recent Kent bird reports from the Kent Ornithological Society (KOS) were used to obtain local status and distribution data for wintering birds (Kent Ornithological Society, 2023). A survey report by the Sandwich Bird Observatory Trust (Sandwich Bay Bird

Observatory Trust, 2020) of the Thanet Coast and Sandwich Bay SPA was also reviewed.

- 1.3.9 The Wetland Bird Survey is a joint scheme run by the British Trust for Ornithology (BTO), the Wildfowl & Wetlands Trust (WWT), Royal Society for the Protection of Birds (RSPB) and Joint Nature Conservation Committee (JNCC) to monitor non-breeding waterbirds nationally. A review of WeBS online data revealed that the Kent Onshore Scheme Order Limits overlapped with and was in proximity to a number of WeBS count sectors with recent data. Online summary data from the five most recent years in which wintering bird counts were completed for the sectors was reviewed.
- 1.3.10 Other documents were reviewed to inform evaluation and assessment, including the Kent Breeding Bird Atlas 2008-13 (Kent Ornithological Society, 2020), statutory and non-statutory designated site citations within 1 km of the Kent Onshore Scheme Order Limits, and LWS criteria (Kent Wildlife Trust, 2022).

Field Survey Method

- 1.3.11 This section details the following field survey methods undertaken:
- intertidal (WeBS): high and low tide counts;
 - inland winter diurnal field survey; and
 - inland winter nocturnal field survey.

Intertidal: High and Low Tide Counts

- 1.3.12 A high tide survey was carried out to record all waterbird species (as defined by (Wetlands International, 2012), along with important incidentally occurring species such as raptors. The survey was based on the WeBS count methods detailed in Bird Monitoring Methods (Gilbert, Gibbons, & Evans, 1998) and guidance from the Bird Survey & Assessment Steering Group (Bird Survey & Assessment Steering Group, 2023), with the survey area modified for the Kent Onshore Scheme. Counts were conducted during the day within two hours (or three at most) on either side of high tide.
- 1.3.13 A low tide count was also conducted across the same survey area as the high tide core counts. The survey count was undertaken within two hours of low tide, avoiding times earlier than one hour after sunrise or one hour before sunset to avoid dusk and dawn flighting. Surveys were based on the low tide count methods detailed in Bird Census Techniques (Bibby, Burgess, Hill, & Mustoe, 2000) and Bird Monitoring Methods (Gilbert, Gibbons, & Evans, 1998).
- 1.3.14 While passerines (perching birds) and other bird species were not the focus of the surveys, notable species were recorded when they were observed using intertidal, shoreline or directly adjacent areas.
- 1.3.15 During the survey, all species, either seen or heard, were recorded, and any signs of breeding activity were noted. Birds were recorded using the standardised BTO two-letter species codes and standardised behaviour codes (Bibby, Burgess, Hill, & Mustoe, 2000).
- 1.3.16 Both surveys were conducted monthly (i.e. a total of six visits per survey type, across the period October 2023 to early March 2024) and recorded birds within the landfall corridor and along the shoreline zone up to 500 m from the Kent Onshore Scheme

Order limits that had been provided at the time of survey commencement (October 2023).

Inland Winter Field Survey

- 1.3.17 The field survey methodology used was based on the survey methodologies detailed in Bird Monitoring Methods (Gilbert, Gibbons, & Evans, 1998) and guidance from the Bird Survey & Assessment Steering Group, (Bird Survey & Assessment Steering Group, 2023). Winter field counts were targeted where possible during the high tide period at Pegwell Bay, when the potential for the presence of birds displaced by the rising and high tide is the greatest.
- 1.3.18 During each survey visit, a suitably experienced ornithologist walked a pre-determined transect route through the Survey Area. All bird species seen or heard during the survey were recorded and signs of activity and behaviour were noted. The species present and their behaviours were recorded on field maps using standard BTO species codes and behaviour notation.
- 1.3.19 During the survey, all species either seen or heard were recorded, however survey effort was focussed on notable species in accordance with the criteria provide in Section 1.2 (i.e. listed as Species of Principal Importance (SPI), red and amber status species (Stanbury, et al., 2021).
- 1.3.20 Birds were recorded using the standardised BTO two-letter species codes and standardised behaviour codes (Bibby, Burgess, Hill, & Mustoe, 2000). Visual counts of all bird species encountered were made, with birds that could not be located visually identified through calls or songs.
- 1.3.21 Based upon its size, the habitat types present, expected impacts of the Kent Onshore Scheme and the lack of granted access to areas of the Survey Area, the Survey Area was split into transect routes using public rights of way, and directly accessing areas where access was granted, and areas where impact from the proposed development was anticipated. While the majority of open fields could be scanned from distance, detailed coverage of all boundaries and woodland parcels was not possible and therefore the survey reflects a sample of the total Kent Onshore Scheme Order Limits. The transect routes are shown in **Application Document 6.4.3.2.C.1 Kent Wintering Bird Daytime Transect Routes (2023-2024)**.
- 1.3.22 Six monthly survey visits were conducted between October 2023 and March 2024, inclusive.
- 1.3.23 Survey routes were alternated on each visit, to ensure that all parts were covered at various times of day across the duration of the survey, during a range of daylight hours between sunrise and sunset.

Nocturnal (Inland) Survey

- 1.3.24 Nocturnal surveys were conducted primarily to record any variation in use of the Survey Area by waterbirds potentially using inland arable fields to forage at night. Golden plover (*Pluvialis apricaria*) in particular is known to have contrasting foraging areas during diurnal and nocturnal hours (Gillings, Fuller, & Sutherland, 2005). The surveys also targeted nocturnal species such as owls that may be under recorded by diurnal surveys.
- 1.3.25 Nocturnal survey visits were conducted after sunset and to coincide with the rising and high tide periods for the Thanet Coast and Sandwich Bay Ramsar and SPA. Approximate tide times and heights for Ramsgate were obtained from the Tides4Fishing

website (Tides4Fishing, 2024) up to a month ahead, and the BBC Weather Tide Tables website (BBC, 2024) up to a week ahead of survey visits.

- 1.3.26 During each survey visit, a suitably experienced ornithologist walked a pre-determined transect route through the Survey Area, similar to the diurnal surveys. Surveyors used vantage points on the transects to scan wide areas using a thermal imaging camera (specification: Pulsar XM30S, 4.5x to 18x magnification and GuideTrack IR PRO 19 1.1 – 8/8x magnification).
- 1.3.27 Care was taken not to enter into field / crop areas further than necessary, to avoid disturbing roosting / foraging birds.
- 1.3.28 Bird species either seen or heard were recorded and their activity was noted, however in comparison to diurnal surveys, effort was focused upon waterbirds, raptors and owls. Birds were recorded using the standardised BTO two-letter species codes and standardised behaviour codes (Bibby, Burgess, Hill, & Mustoe, 2000).
- 1.3.29 Surveyors walked the transect routes shown in **Application Document 6.4.3.2.C.8 Kent Wintering Bird Nocturnal Transect Routes (2023-2024)**. Note that nocturnal transects are spatially reduced in comparison to the diurnal transects due to the increased difficulty and reduced range of visibility inherent with nocturnal surveys. Transects focused on future areas of permanent and temporary above-ground infrastructure (e.g. converter station, construction compounds and overhead lines) in order to best target the survey effort.

Flight Activity (Vantage Point) Surveys

- 1.3.30 Vantage point surveys conducted during the wintering and breeding periods of February 2023 to January 2024 recorded flight lines of species potentially sensitive to collision with infrastructure in order to gain a qualitative assessment of collision risk with the proposed OHL.
- 1.3.31 The survey methodology followed that outlined within SNH (Scottish Natural Heritage, 2017) and focussed solely on the western OHL extent of the Kent Onshore Scheme Order Limits. The surveys commenced in February 2023 and were completed in January 2024. Therefore, observations from the October 2023 to January 2024 surveys are included where appropriate.
- 1.3.32 National Grid also undertook a corpse search survey of the existing OHL during the 2023-24 winter season and the spring passage/early breeding season (January to April), which partially overlapped with the period of the 2023/2024 winter surveys.
- 1.3.33 The objective of the survey was to record any possible bird mortalities associated with possible collisions with the components of the existing OHL. An adapted version of the SNH 2009 bird corpse search methodology (incorporating methods for bats (Heritage, 2021) and the most recent SNH guidance on bird assessment (Scottish Natural Heritage, 2017) for wind turbine mortality monitoring was conducted in areas in direct proximity to existing OHL (power lines) within the Survey Area, south of the River Stour canal.
- 1.3.34 While these surveys do not form part of the scope of this report, any key observations relevant to the 2023/24 winter season (especially when not captured by the other survey types) are included as supplementary data and incorporated into the assessment.

Survey Personnel, Dates and Weather

- 1.3.35 The winter bird survey visits were led by a team of five suitably experienced ornithologists.
- 1.3.36 Surveyor one has over 15 years of ornithological survey and bird identification experience. Surveyor two has over 30 years of ornithological experience, which includes breeding and wintering bird surveys. Surveyor three has over 36 years of ornithological experience, with 16 years' experience of ornithological surveys relating to development projects. Surveyor four has over 30 years of ornithological experience, which includes breeding and wintering bird surveys, including internationally. he additionally has held licences for species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is a bird ringing permit holder. Surveyor five has over ten years of ornithological experience, with over four years' experience of ornithological surveys relating to development projects.
- 1.3.37 Bird survey visits were conducted in the months of October 2023 to March 2024. Note that due to access limitations and surveyor illness, a number of visits of the Survey Area had to be split between different dates (e.g. nocturnal survey visit one was split between two dates).
- 1.3.38 Survey visits were not conducted during periods of prolonged heavy rain, strong wind (above Beaufort 4), fog (which may limit or alter bird behaviour), or where surveying may be impractical, wherever possible. Survey visits were undertaken in suitable weather conditions (see Table 1.2 below).

Table 1.2 Dates and weather conditions for each survey visit

Visit No.	Date	Tide time	Tide height (m)	Sunrise/sunset	Start time	End time	Weather conditions:
Intertidal (High and Low Tides)							
1 Low	18/10/23	8:41am	1.0	7:22am	8:40am	10:50am	Start 13°C, 7/8 cloud, wind BF 3 SE, dry End 14°C, 8/8 cloud, wind BF 4 SE, dry
1 High		1:56pm	5.15	5:55pm	12:40pm	2:15pm	Start 15°C, 8/8 cloud, wind BF 4 SE, dry End 14°C, 8/8 cloud, wind BF 4 SE, dry
2 High	10/11.23	9:36am	4.6	7:02am	8:30am	11am	Start 11°C, 4/8 cloud, wind BF 3-4 W, dry

Visit No.	Date	Tide time	Tide height (m)	Sunrise/sunset	Start time	End time	Weather conditions:
							End 10°C, 8/8 cloud, wind BF 1-2 W, dry
2 Low		4:08pm	1.1	4:13pm	1:05pm	3:15pm	Start 9°C, 8/8 cloud, wind BF 2-3 NW, heavy rain End 9°C, 8/8 cloud, wind BF 3-4 NW, heavy rain
3 Low	18/12/23	9:54am	0.8	7:54am	8:30am	11:10am	Start 9°C, 8/8 cloud, wind BF 3 SW, dry End 11°C, 4/8 cloud, wind BF 3 SW, dry
3 High		3:19pm	4.6	3:46pm	1:20pm	3:20pm	Start 13°C, 4/8 cloud, wind BF 3 SW, dry End 10°C, 8/8 cloud, wind BF 3 SW, dry
4 Low	15/01/24	9:10am	0.2	7:52am	8:15am	10:20am	Start 1°C, 0/8 cloud, wind BF 3 NE, dry End 2°C, 0/8 cloud, wind BF 3 NE, dry
4 High		2:11pm	5.0	4:10pm	12:35pm	1:55pm	Start 3°C, 1/8 cloud, wind BF 3-4 NE, dry End 2°C, 0/8 cloud, wind BF 3-4 NE, dry
5 High	01/02/24	9:35am	1.1	7:32am	8:50am	11am	Start 5°C, 0/8 cloud, wind BF 2-3 NW, dry End 7°C, 0/8 cloud, wind BF 2-3 NW, dry
5 Low		3:06pm	4.4	4:34pm	1:05pm	2:45pm	Start 8°C, 0/8 cloud, wind BF 2-3 NW, dry

Visit No.	Date	Tide time	Tide height (m)	Sunrise/sunset	Start time	End time	Weather conditions:
							End 8°C, 1/8 cloud, wind BF 2 NW, dry
6 Low	13/03/24	8:15am	0.4	6:11am	7:40am	9:20am	Start 12°C, 8/8 cloud, wind BF 2-3 SW, dry End 12°C, 8/8 cloud, wind BF 2 SW, dry
6 High		1:27pm	5.4	5:56pm	11:50am	1:45pm	Start 13°C, 8/8 cloud, wind BF 2-3 SW, dry End 13°C, 8/8 cloud, wind BF 2-3 SW, dry
Inland (Diurnal)							
1	26/10/23	10:06am (High)	4.79	7:36am/5:39pm	9am	2:30pm	Start 9°C, 8/8 cloud, wind BF 2 S, heavy rain stopping by approx. 11. End 13°C, 5/8 cloud, wind BF 2-3 S, dry
2	27/11/23	10:59am (High)	5.26	07:30am/3:52pm	9:10am	1:35pm	Start 9°C, 8/8 cloud, wind BF 2-4 NW, scattered showers. End 9°C, 8/8 cloud, wind BF 2-3 W, scattered showers
3	19/12/23	4:24pm	4.4	7:55am/3:50pm	9:35am	1:10pm	Start 11°C, 8/8 cloud, wind BF 2 SW, rain End 11°C, 8/8 cloud, wind BF 2 SW, rain
4	22/01/24	8:57am	4.1	7:46am/4:25pm	8:15am	12:20pm	Start 9°C, 4/8 cloud, wind BF 4-5 W, dry

Visit No.	Date	Tide time	Tide height (m)	Sunrise/sunset	Start time	End time	Weather conditions:
							End 9°C, 0/8 cloud, wind BF 4-5 W, dry
5	22/02/24	10:38am	4.4	6:55am/5:21pm	8:40am	12pm	Start 11°C, 8/8 cloud, wind BF 4 SW, light drizzle End 9°C, 8/8 cloud, wind BF 5 SW, light drizzle
6	12/03/24	12:44pm	5.6	6:14am/5:54pm	8:50am	12:05pm	Start 9°C, 8/8 cloud, wind BF 1-2 SW, light drizzle End 9°C, 8/8 cloud, wind BF 3-4 SW, light drizzle
Nocturnal (Inland)							
1* (west of railway only)	21/12/23	6:54pm	4.3	3:48pm	5pm	8pm	Start 11°C, 2/8 cloud, wind BF 4-5 W, dry End 11°C, 2/8 cloud, wind BF 4-5 W, dry
2	08/01/24	9:15pm	4.3	4:04pm	7:30pm	11pm	Start 4°C, 7/8 cloud, wind BF 3-4 E, dry End 1°C, 7/8 cloud, wind BF 3-4 E, dry
3* (east of railway only)	20/01/24	7:22pm	4.1	4:22pm	5:35pm	10:10pm	Start 4°C, 7/8 cloud, wind BF 4-5 SW, dry End 4°C, 8/8 cloud, wind BF 4-5 SW, dry
4	20/02/24	9:22pm	5.0	5:19pm	7:30pm	11:50pm	Start 9°C, 8/8 cloud, wind BF 4 SW, dry

Visit No.	Date	Tide time	Tide height (m)	Sunrise/sunset	Start time	End time	Weather conditions:
							End 9°C, 8/8 cloud, wind BF 4 SW, dry
5 (north of Stour canal only)	07/03/24	9:23pm	4.4	5:46pm	7:10pm	10:50pm	Start 7°C, 0/8 cloud, wind BF 3-4 W, dry End 7°C, 0/8 cloud, wind BF 3-4 W, dry
6 (south of Stour canal only)	19/03/24	7:40pm	3.6	6:06pm	7pm	9:45pm	Start 10°C, 8/8 cloud, wind BF 1, dry End 7°C, 2/8 cloud, wind BF 1, dry

Assessment and Evaluation

Assessment criteria

- 1.3.39 An assessment of the ornithological importance of the Survey Area is made by evaluating (in terms of abundance, distribution, frequency or assemblage diversity) species afforded special statutory protection or those included on one, or more, of the lists of species of conservation interest within legislation, policy and guidance as detailed in Section 1.2.
- 1.3.40 The assessment of the ornithological importance of the Survey Area during the wintering season was therefore made primarily by evaluating any species listed within;
- species listed on Annex 1 of the EU Birds Directive or a qualifying feature of potentially functionally linked internationally designated sites;
 - species listed on Schedule 1 of the WCA, 1981 (as amended);
 - priority bird species in the UK;
 - species listed as priority species or additional species of interest within Kent; and
 - species included in the Birds of Conservation Concern (BoCC) Red and Amber Lists (Stanbury, et al., 2021).
- 1.3.41 Additionally, assemblages have been assessed against the criteria for Local Wildlife Site designation within the Kent Local Wildlife Site Selection Criteria (Kent Wildlife Trust, 2022).
- 1.3.42 A comparison between population sizes present within the Survey Area with the national and county breeding population estimates for certain species was also taken into account. National estimates for breeding birds are published in a paper: 'Population estimates of birds in Great Britain and the United Kingdom' (Woodward, et al., 2020)

and wintering waterbird population estimates (Austin, et al., 2023) were taken from national WeBS reports. The BTO Bird Atlas 2007-2011 (Balmer, et al., 2013) was also reviewed for species information on a national level and to inform the above assessment criteria.

- 1.3.43
- Information on the population status of wintering bird species at a county level was sourced from the latest available issues of the Kent Bird Reports (KOS, 2017-2022).
- 1.3.44
- Information on populations of nationally rare species was sourced from the most recently published paper by the Rare Breeding Birds Panel (RBBP) (Holling & Rare Breeding Bird Panel, 2019).

Importance of bird populations (valuation)

- 1.1.1
- To inform assessment of the importance of the bird populations, their biodiversity values have been defined with reference to the geographical level based on the values presented in the Chartered Institute of Ecology and Environmental Management (CIEEM) ‘Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland’ (CIEEM, 2018) as well as professional judgment.
- 1.1.2
- These assessment criteria (set out in Table 1.3 below) have been used in conjunction with an assessment of species status, abundance and diversity, to assess the biodiversity importance of the bird populations recorded during the surveys.

Table 1.3 Biodiversity importance of ornithological features

Biodiversity Importance	Description and examples of criteria
International or European	Resident or regularly occurring populations of species which may be considered of importance at an international or European level ¹ where: the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; the population forms a critical part ² of a wider population at this scale; or the species is at a critical phase ³ of its life cycle at this scale.
UK or National	Areas of habitats with priority species identified in the UK Post-2010 Biodiversity Framework i.e. UK Biodiversity Action Plan (BAP), including those published in accordance with Section 41 of the NERC Act (2006) and those considered to be of principal importance for the conservation of biodiversity. Resident or regularly occurring populations of species which may be considered of importance at a UK or a national level ⁴ where: - the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; - the population forms a critical part of a wider population at this scale; or - the species is at a critical phase of its life cycle at this scale.

Biodiversity Importance	Description and examples of criteria
Regional	Populations of species of importance at a regional level (i.e. South-east England). Resident or regularly occurring populations of species which may be considered of importance at a regional level⁵ where: - the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; - the population forms a critical part of a wider population at this scale; or - the species is at a critical phase of its life cycle at this scale.
County	Populations of species of value at a County (i.e. Kent) level or District (e.g. Thanet). Resident or regularly occurring populations of species which may be considered of importance at a County (or District) level⁶ where: - the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; - the population forms a critical part of a wider population at this scale; or, - the species is at a critical phase of its life cycle at this scale
Local	Species populations of importance in a local (i.e. within ~ 2 km of the site) context. Populations or communities of species considered to appreciably enrich the habitat resource within the local context (such as veteran trees), including features of value for migration, dispersal or genetic exchange.
Negligible (Site)	Habitats and associated species that is of value in the context of the site only. Populations of common and widespread species

1 Such species include those listed within the Directive 2009/147/EC on the Conservation of Wild Birds (i.e. EC Birds Directive) (codified version of Council Directive 79/409/EEC as amended) or animal or plant species listed within Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (i.e. Habitats Directive).

2 Such populations include sub-populations that are essential to maintenance of metapopulation dynamics, e.g. critical emigration and, or immigration links between otherwise discrete populations.

3 Seasonal activity or behaviour upon which survival or reproduction depends.

4 Species which may be considered at the UK or national level mean: birds, other animals and plants which receive legal protection on the basis of their conservation interest (those listed within the Wildlife and Countryside Act 1981 (as amended) Schedule 1, 5 and 8); species listed for their principal importance for biodiversity (in accordance with the Natural Environment and Communities Act 2006 Section 41 England), priority species listed within the UK Post 2010

Biodiversity Importance	Description and examples of criteria
	Biodiversity Framework (i.e. UK Biodiversity Action Plan (UKBAP)), or species listed within the Red Data Book. 5 Such species include those listed in the appropriate Natural Character Area description. 6 Such species include those at county level (i.e. Kent) including unitary authority area i.e. District level (i.e. South-east England); as listed on the LBAPs; and listed as a county designated site. *As well as assigning importance there is also a need to identify all legally protected species that could be affected by the proposed scheme in order that measures can be taken to ensure that adherence to the relevant legislation is observed. This may include the adoption of mitigation and appropriate licensing which are acceptable to Natural England.

- 1.3.45 Only ecological features within the Kent Onshore Scheme Order Limits and/or ZOI valued at a local level or above have been taken forward for future assessment within the Ecological Impact Assessment (EclA). Those valued at below this level of importance, for example at the ZOI level, have been scoped out of the assessment process.
- 1.3.46 A summary of the potential impacts of the Kent Onshore Scheme upon important bird species, has not been included as this is discussed in detail within the ES.

Limitations

- 1.3.47 An ecological survey represents a 'snapshot'. The extent and quality of habitats present, and their suitability for protected and priority species, such as birds, can change substantially throughout both the course of a year and between years. However, any seasonal limitations to the appraisal are clearly identified in this report, and the Lifespan of this report at least partially addresses the potential for changes between years. Therefore, this standard limitation is addressed as far as is reasonably possible.
- 1.3.48 The aim of a desk study is to help characterise the baseline context of the site and provide valuable background information that would not be captured by a single site survey alone. Information obtained during a desk study was dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitat or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Kent Onshore Scheme Order Limits.
- 1.3.49 Recorded bird numbers on a single survey visit are the sum of bird registrations including estimations of flocks. As such counts do not always represent exact 'to the nearest bird' figures due to the inherent issues with estimating large bird numbers, but instead provide a representation of the magnitude of bird numbers present which can be used to review overall trends through peaks and means.
- 1.3.50 Additionally on occasion, birds could be identified only as small wader or a likely species due to the distance between the bird and surveyor. These registrations are highlighted within results and evaluation where relevant.

- 1.3.51 Any potential effects of 'double counting' within the sum of bird registrations have been addressed as far as reasonably possible both by surveyor professional judgement in the field and when analysing count data.
- 1.3.52 The winter 2023/2024 period was noted to be subject to exceptional levels of rainfall ('Southern England was particularly wet with 153% of the 1991-2020 average rainfall'), resulting in the Survey Area being subject to extensive flooding and containing extensive levels of standing water. Such conditions were not present during previous survey seasons (i.e. Winter 2022/2023) as observed during previous wintering bird surveys (see **Application Document 6.3.3.2.B Wintering Bird Survey Report 2023-2024**). As a result the large number of water birds recorded during early 2024 (primarily with flooded arable areas south of the River Stour Canal and also the arable fields east of the railway line in Parcel 244) may not be representative of more 'usual' years (though noting that flooding may become more frequent in future years due to climate change).
- 1.3.53 Limitations specific to particular survey types are detailed below. Overall, there are no other significant limitations to the survey results.

Intertidal

- 1.3.54 The large distances between the available vantage points along the Pegwell Bay coast path PRoW and the tideline at Pegwell Bay during low tide made observation and recording difficult, even when using telescopes. To compensate, low tide counts were extended to three hours prior to or after low tide to enable accurate recording of species and numbers present. All surveys encompassed a period adjacent to low tide itself (i.e. within half an hour) to record any key movements or additions to the species encountered prior or after. As such, this limitation was dealt with as reasonably as possible.
- 1.3.55 As bird movements occurred during the course of a tidal count, surveyor judgement was used to minimise the effects of double counting as far as possible through review of the likely maximum count present.
- 1.3.56 Due to distances, on a few occasions far-off flocks could not be identified to species level. Where this occurs, species are either allocated an appropriate group code (i.e. 'unidentified small wader') or a judgement based on the surveyor information is made to allocate to a likely species. Such instances are highlighted in **Annex 2.C.3** and a precautionary approach made within the evaluation.
- 1.3.57 The size of the intertidal Survey Area meant that only one count was conducted during each tide (i.e. the size of the Survey Area prevented detailed review of movements of birds within a single tide window).

Inland

- 1.3.58 Access to the entire Order Limits was not available at the time of survey, and additionally the design was not finalised. As a result of both factors, the inland walkover used a series of 'sampling' transects to cover major habitat types and extents that could be affected by the Kent Onshore Scheme, as well as using viewpoints to scan fields for any bird aggregations, in particular any species associated with designated sites. In general, the majority of open field areas were scanned from distance, but not all boundary features could be directly accessed.

- 1.3.59 Inland surveys during January 2024 were further limited by lack of access to land parcels, and so surveys were only able to be conducted from the available PRoWs, further limiting the sample survey coverage. January inland counts could not access Parcels 328, 336 and 346 in the northeast of the Survey Area.
- 1.3.60 The exceptional rainfall levels during winter 2023/2024 were not completely avoidable on some survey visits, notably the inland walkover during December. This likely resulted in the under recording of passerine species and activity on this visit and this has been taken into account during evaluation.
- 1.3.61 On occasion, traffic noise from an adjacent major road (the A526) made it difficult to hear calling birds in habitats directly adjacent to this road. However, any resulting impacts on bird detectability were relatively minor and are therefore not regarded as a significant limitation to the survey.
- 1.3.62 The limited access and corresponding limitations to survey coverage have been taken into account within the assessment. While access limitations are likely to have less of an effect on detection of large bird aggregations and larger species, it is likely that cryptic and small passerine species were under recorded.
- 1.3.63 To control for time-of-day effects, the survey route was reversed or altered on each visit.

Nocturnal

- 1.3.64 Due to a combination of withdrawal of access permissions to parts of the Survey Area or surveyor absence that could not be rescheduled, the Survey Area was surveyed either entirely in one night (between survey pairs) or split between multiple nights.
- 1.3.65 Due to access limitations and surveyor illness, a number of survey visits had to be 'split' between dates, with separate geographical areas of the Survey Area being covered on different dates. The coverage, peak count and other data for each of these split dates will therefore not be equivalent to a survey date where the Survey Area was covered in its entirety. These dates are highlighted within the results and evaluation. While the results from the split survey dates cannot be simply added together (due changes in bird activity and distribution between dates as well as possible double counting of birds), the reduced coverage is taken account of within the evaluation. Conversely, the additional survey dates provide wider temporal coverage, potentially providing more information on temporal distribution and variation.
- 1.3.66 Access limitations are taken into account within this report within the evaluation of species survey data.
- 1.3.67 A number of inherent limitations with nocturnal surveys are taken into account within the evaluation of results, primarily that nocturnal surveys focus on target species and that survey coverage and species assemblage recording is not directly comparable to the daytime inland walkovers.

Lifespan of the Appraisal

- 1.3.68 It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move or new species may be recorded in subsequent years. For this reason and in accordance with current guidance, the field survey data detailed in this report are valid for two years (CIEEM, 2019). After this date, update surveys may be required and advice should be sought from an appropriately qualified ecologist to determine survey scope and methods.

1.4 Results

Desk Study

Designated sites

- 1.4.1 A number of international designations of wintering and passage ornithological interest are present within 10 km of the Site, as follows:
- Thanet Coast and Sandwich Bay SPA and Thanet Coast and Sandwich Bay Ramsar (both designations overlap the Site).
 - Stodmarsh SPA and Stodmarsh Ramsar (approximately 8 km west).
- 1.4.2 The relevant wintering and passage ornithological qualifying features and interest for these internationally designated sites is summarised below.

Thanet Coast and Sandwich Bay SPA

- 1.4.3 The SPA qualifies under Article 4.1 of the Directive (2009/147/EC) as it is used regularly by the following species listed in Annex I:
- *“Over winter the area regularly supports: golden plover (*Pluvialis apricaria*) 0.2% of the GB population (5 year peak mean 1991/92-1995/96.....411 individuals).”*
- 1.4.4 The SPA qualifies under Article 4.2 of the Directive (2009/147/EC) as it is used regularly by the following species listed in Annex II:
- *“Over winter the area regularly supports: ruddy turnstone (*Arenaria interpres*) 1.4% of the population (5 year peak mean 1991/92-1995/96.....940 individuals).”*

Thanet Coast and Sandwich Bay Ramsar

- 1.4.5 The Ramsar site qualifies under Ramsar criterion 6 – (species/populations occurring at levels of international importance) because it regularly supports:
- *“Species with peak counts in winter ruddy turnstone, 1007 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3).”*
- 1.4.6 A number of other species are classed as ‘noteworthy fauna’ but are not qualifying species. Relevant bird species occurring at levels of national importance:
- 1.4.7 “Species with peak counts in spring/autumn:
- *Ringed plover (*Charadrius hiaticula*), Europe/Northwest Africa 649 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3).*
 - *Common greenshank (*Tringa nebularia*), 35 individuals, representing an average of 5.8% of the GB population (5 year peak mean 1998/9-2002/3).*
 - *Species with peak counts in winter: Red-throated diver (*Gavia stellata*), NW Europe 57 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3).*

- Great crested grebe (*Podiceps cristatus cristatus*), NW Europe. 218 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3).
- Sanderling (*Calidris alba*), Eastern Atlantic. 598 individuals, representing an average of 2.9% of the GB population.”

Stodmarsh SPA

- 1.4.8 The site qualifies under Article 4.1 of the Directive (2009/147/EC) as it is used regularly by the following species listed in Annex I overwinter:
- “Bittern (*Botaurus stellaris*) (Europe - breeding) 4% of the GB population 5 year peak count, 1987/8-1991/2.
 - Hen harrier (*Circus cyaneus*) 1.2% of the GB population 5 year peak count, 1987/8-1991/2.”
- 1.4.9 The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it is used regularly by the following species listed in Annex II:
- “Over winter the area regularly supports: Shoveler (*Anas clypeata*) [*Spatula clypeata*] (North-western/Central Europe) 1.9% of the population in Great Britain 5 year peak mean 1991/92-1995/96.
 - Gadwall (*Anas strepera*) (North-western Europe) 1.8% of the population in Great Britain 5 year peak mean 1991/92-1995/96.
 - An internationally important assemblage of water birds with shoveler (*Spatula clypeata*), mallard (*Anas platyrhynchos*), wigeon (*Mareca penelope*), pochard (*Aythya farina*), tufted duck (*Aythya fuligula*), bittern (*Botaurus stellaris*), hen harrier (*Circus cyaneus*), snipe (*Gallinago gallinago*), water rail (*Rallus aquaticus*) and lapwing (*Vanellus vanellus*) referenced within the citation assemblage.”

Stodmarsh Ramsar

- 1.4.10 The site qualifies under Ramsar criterion 2 – (wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities) because it regularly supports the following wintering / passage qualifying species /populations:
- 1.4.11 Species with peak counts in spring/autumn:
- Gadwall (*Anas strepera*), 267 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3).
- 1.4.12 Species with peak counts in winter:
- Great bittern (*Botaurus stellaris*), two individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9).
 - Northern shoveler (*Anas clypeata*), 274 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3).
 - Hen harrier (*Circus cyaneus*), Europe nine individuals, representing an average of 1.2% of the GB population (5 winter period peak count 1987/8-1991/2).

Other statutory and non-designated sites

- 1.4.13 A review of other statutory and non-statutory designated sites within 2 km found that Sandwich Bay and Hacklinge Marshes SSSI is located within the Site and Survey Area (overlapping with the Thanet Coast and Sandwich Bay SPA and Ramsar).
- 1.4.14 The Sandwich Bay and Hacklinge Marshes SSSI citation describes the SSSI ornithological interest as follows:
- “The ornithological interest of Sandwich Bay and Hacklinge Marshes is centred on the large numbers of waders and wildfowl which use the area in winter and during the Spring and Autumn migrations. Dunlin (*Calidris alpina*) is usually the most common wader present, found particularly on the mudflats where the rich invertebrate fauna also attracts a wide range of other common species such as oystercatcher (*Haematopus ostralegus*), curlew (*Numenius arquata*), and redshank (*Tringa totanus*). Grey plover (*Pluvialis squatarola*) and sanderling (*Calidris alba*) both overwinter in nationally important numbers, whilst ringed plover (*Charadrius hiaticula*) also occurs in nationally important numbers during migration. Wildfowl that occur on the site include mallard (*Anas platyrhynchos*), shelduck (*Tadorna tadorna*) and occasionally brent goose (*Branta bernicla*). Many of the birds use more than one habitat, some for example feed on the mudflats at low tide and then move up to roost on the saltmarsh or grazing marsh. Breeding birds include ringed plover, oystercatcher and little tern (*Sterna albifrons*), a species specially protected by law and listed on Schedule 1 of the Wildlife and Countryside Act 1981. Inland areas are also of interest supporting two nationally rare species of breeding birds.”*
- 1.4.15 A review of other statutory and non-statutory designated sites within 2 km found that other designated sites were designated primarily for their habitats without detailed ornithological criteria.
- 1.4.16 As a result, where species assemblages may be relevant to connected designated site habitats, these are reviewed, but focus is made upon the internationally designated sites listed above.

WeBS data summaries

- 1.4.17 The most recent five year WeBS core count summary data was reviewed to provide both additional desk study data relevant to the Survey Area but also to provide an updated baseline for internationally designated sites, given the age of the counts stated within the citations.
- 1.4.18 A number of WeBS count sectors relevant to the Kent Onshore Scheme Order Limits were reviewed as follows:
- Pegwell Bay (location code: 22412), which includes the intertidal Survey Area;
 - Ash Levels (location code 22341) is a count sector which encompasses the Survey Area south of the River Stour (including areas within the Kent Onshore Scheme Order Limits) but is overall a much larger site (encompassing over four square kilometres) and so results have been assessed within this context;
 - Worth Marshes/Lyddon Valley (Location Code: 22075) which encompasses the southern areas of the Thanet Coast SPA and Ramsar. Note however no recent (5 year) count data was available for this site;

- Thanet Coast which encompasses the northern areas of the Thanet Coast SPA and Ramsar; and
 - Stodmarsh (location code 22072), which encompasses the Stodmarsh SPA and Ramsar.
- 1.4.19 Key species counts potentially relevant to the Survey Area recorded within the last five years are provided in more detail within **Annex 2.C.1**.
- 1.4.20 In summary, a large assemblage of notable bird species records were recorded from all the above WeBS count sectors with some large counts of many species that are associated with the designated sites.
- 1.4.21 Recent WeBS counts were returned from the Thanet Coast SPA and Ramsar (which includes the Pegwell, Thanet Coast and Worth Marshes sectors) and the Stodmarsh SPA and Ramsar, to allow comparison between field results and the latest recorded counts from these designated sites.

Field Survey

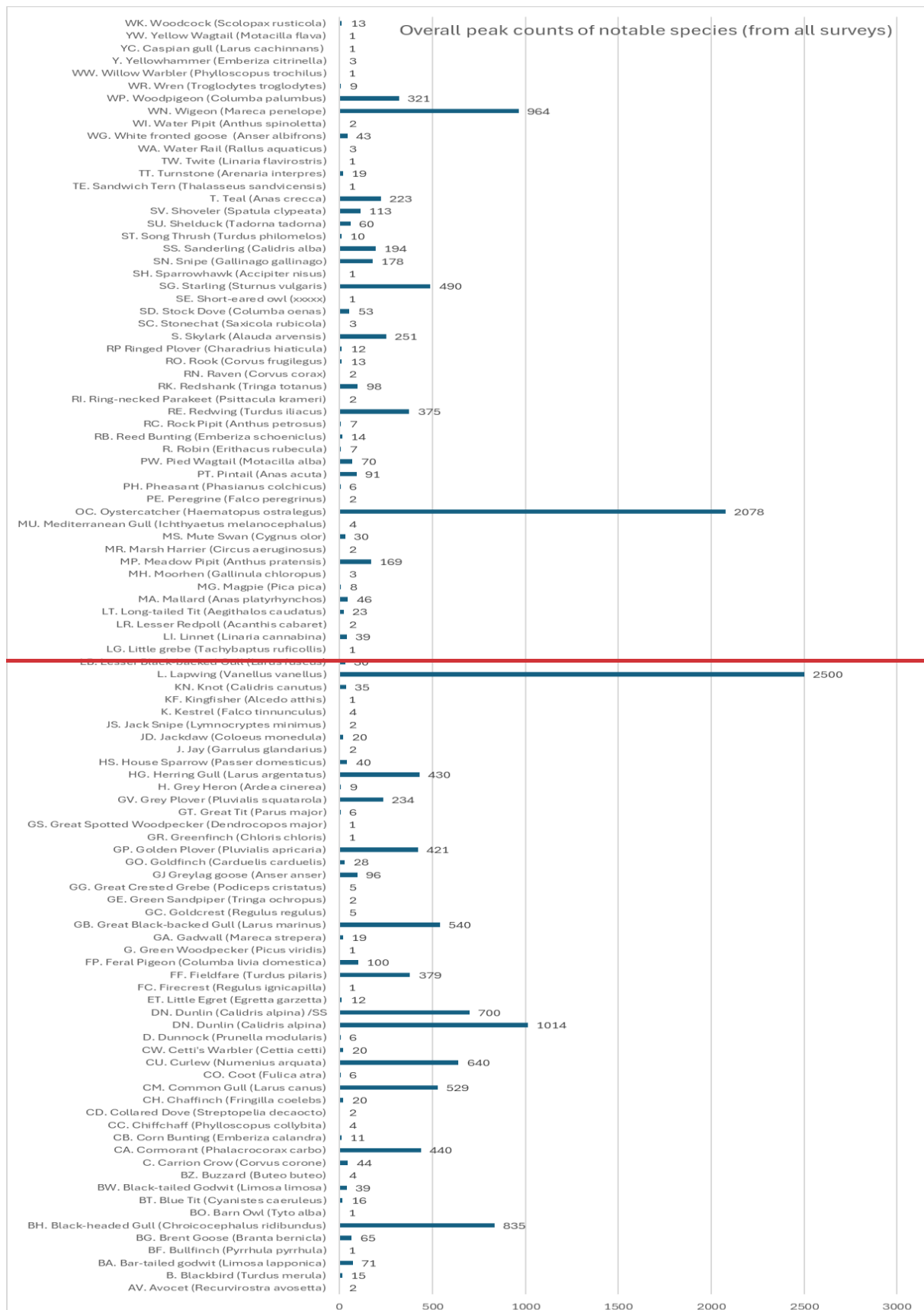
- 1.4.22 The results for the surveys are described below, both in the context of the combined results for all surveys and then in the context of the individual survey types.

Combined results

- 1.4.23 A total of 101 species were recorded within the entire Survey Area (combined intertidal and inland areas) during the 2023/2024 wintering bird survey (and including incidental species recorded during other surveys).
- 1.4.24 All species were recorded utilising the Survey Area during the course of the surveys, aside from white-fronted goose (*Anser albifrons*) (recorded only as a flyover). Therefore, 100 species were recorded using the Survey Area directly.
- 1.4.25 Distribution maps are provided in:
- **Application Document 6.4.3.2.C.2 Kent Winter Bird Survey Day Time Results October 2023;**
 - **Application Document 6.4.3.2.C.3 Kent Winter Bird Survey Day Time Results November 2023;**
 - **Application Document 6.4.3.2.C.4 Kent Winter Bird Survey Day Time Results December 2023;**
 - **Application Document 6.4.3.2.C.5 Kent Winter Bird Survey Day Time Results January 2024;**
 - **Application Document 6.4.3.2.C.6 Kent Winter Bird Survey Day Time Results February 2024;**
 - **Application Document 6.4.3.2.B.7 Kent Winter Bird Survey Day Time Results March 2023;**
 - **Application Document 6.4.3.2.C.9 Kent Winter Bird Survey Nocturnal Results October 2023;**
 - **Application Document 6.4.3.2.C.10 Kent Winter Bird Survey Nocturnal Results November 2023;**

- Application Document 6.4.3.2.C.11 Kent Winter Bird Survey Nocturnal Results December 2023;
- Application Document 6.4.3.2.C.12 Kent Winter Bird Survey Nocturnal Results January 2024;
- Application Document 6.4.3.2.C.13 Kent Winter Bird Survey Nocturnal Results February 2024; and
- Application Document 6.4.3.2.C.14 Kent Winter Bird Survey Nocturnal Results March 2023.

- 1.4.26 Note that results for the intertidal field counts (and associated peaks) are presented separately, due the separation of these species in both time and space. For some species, the same birds will be using both areas and therefore a combination of both survey counts would represent an overestimate. For some sedentary species or those with limited ranges, it is possible that the numbers recorded during each survey type could be combined for a total peak count. Counts for each survey type are kept separate but this variation in site use and distribution is addressed within evaluation.
- 1.4.27 The overall peak therefore reflects the highest count on any one individual survey but does also include incidental observations from other survey types (i.e. vantage point).
- 1.4.28 A summary of the species recorded, along with their respective peak and mean counts from the survey visits (for the intertidal and inland counts), is provided in **Annex 2.C.2 'Detailed Survey Data'**.
- 1.4.29 Note that only notable passerines using the foreshore or directly adjacent habitats were recorded during high and low tide counts in order to focus survey effort and so some non-notable species appear under-represented on the tidal counts. Conversely, the large numbers of waterbirds reflects the large aggregations present within the WeBS survey area.
- 1.4.30 Species are shown in alphabetic order (rather than taxonomic) to aid with consistency when manipulating results within a database and to assist 'lay' readers.



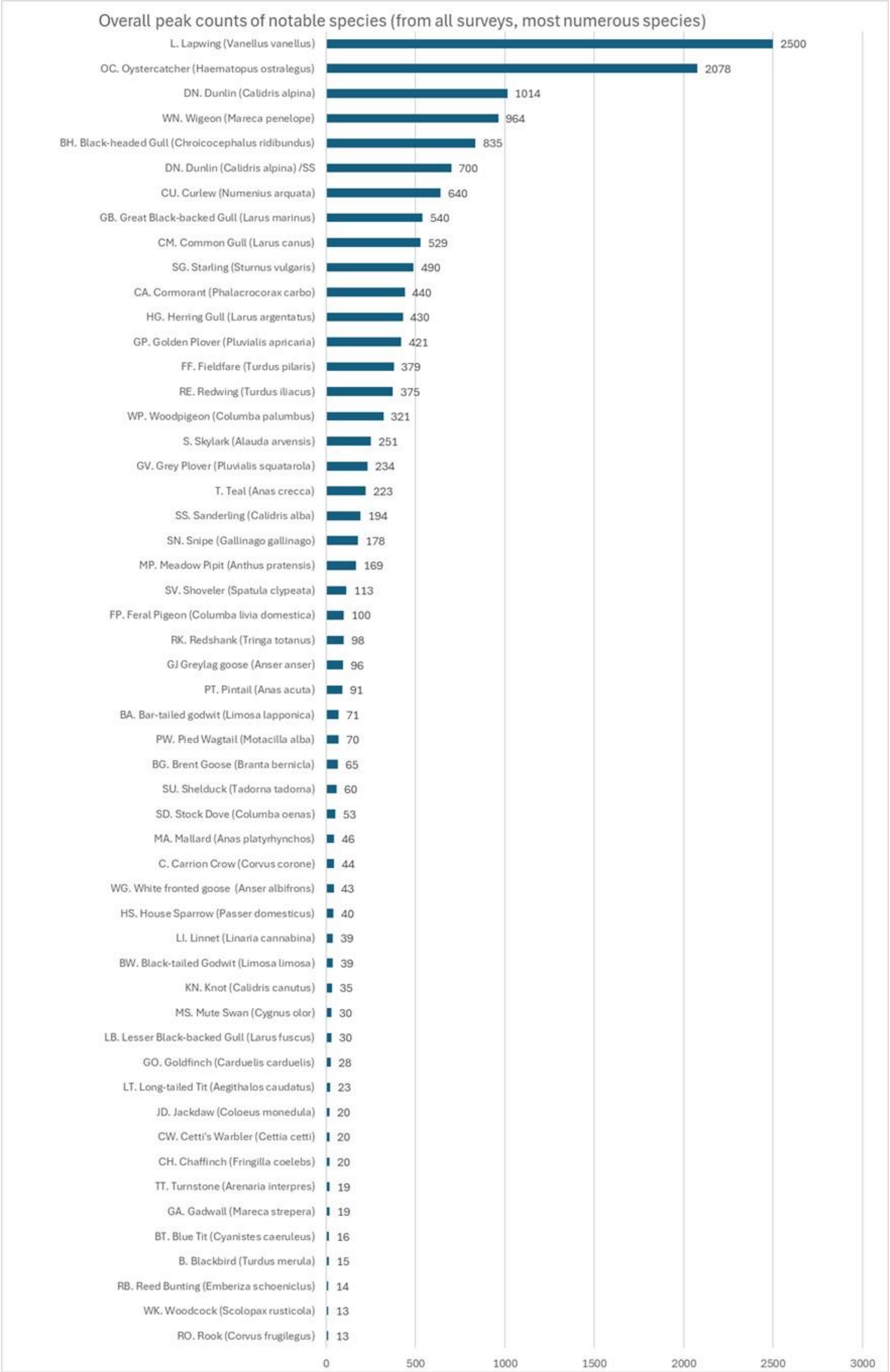


Plate 1.1a Summary of notable species peak count (from all survey types, most numerous species)

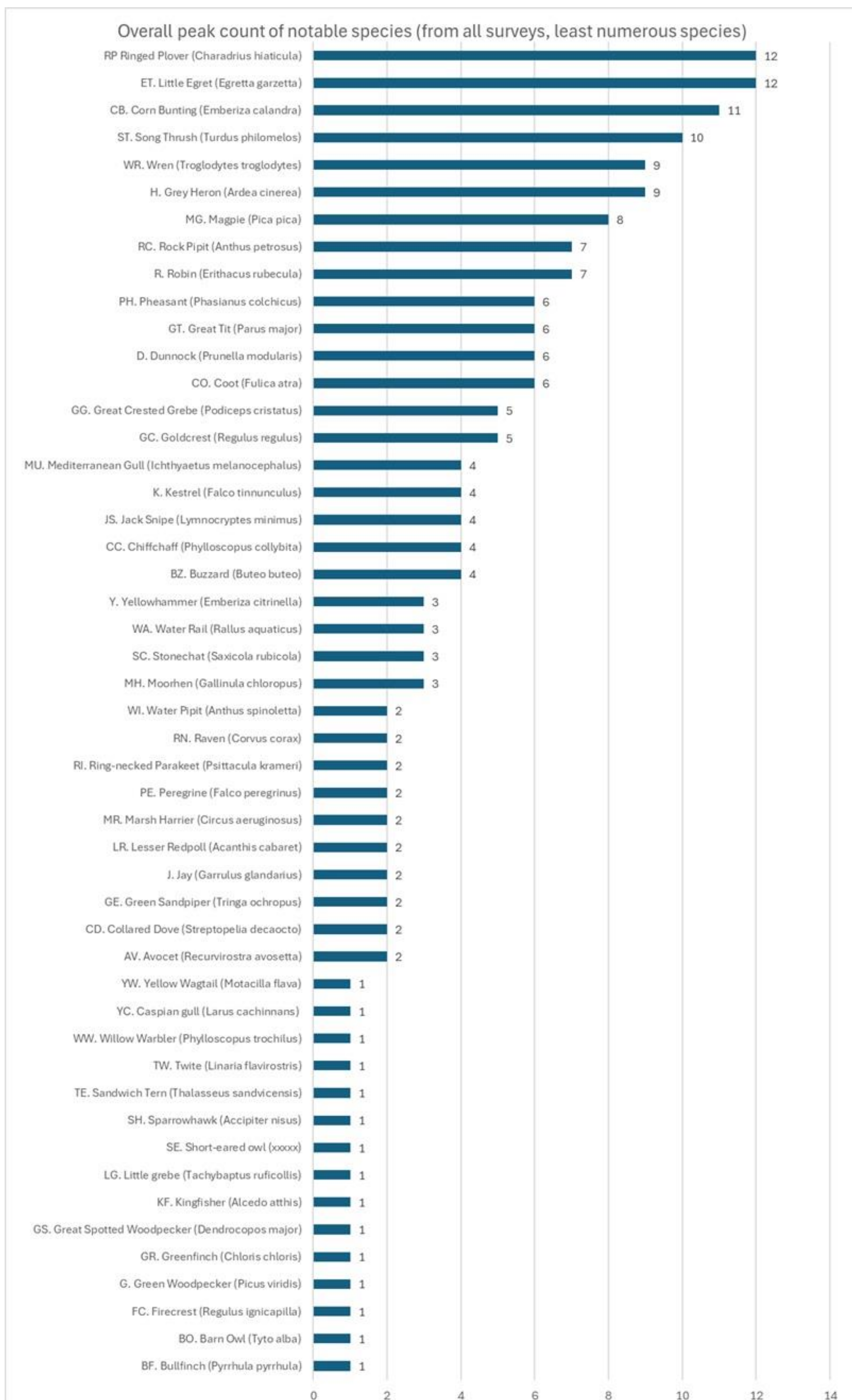


Plate 1.2b Summary of notable species peak count (from all survey types, least numerous species)

Intertidal: high and low tide counts.

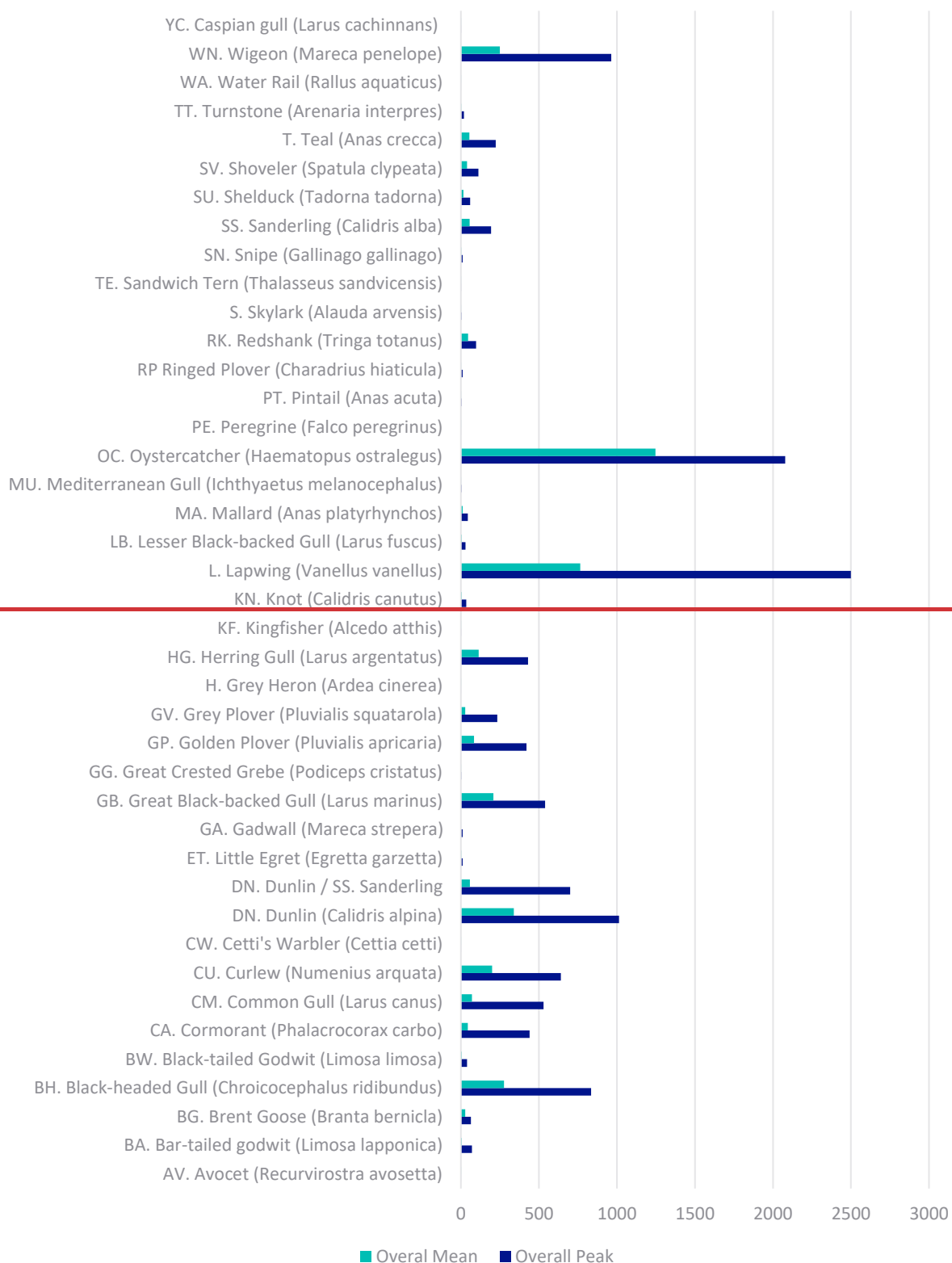
Assemblage summary

- 1.4.31 A total of 66 species were recorded within the intertidal areas during the 2023/2024 wintering bird survey.
- 1.4.32 Note the recorded species assemblage includes passerines and species using scrub and treeline habitat adjacent to the shoreline, although recording of non-WeBS-target species was limited to notable species only.
- 1.4.33 The presentation of results below has been focussed on waterbirds and other key groups (i.e. raptors) as the target group for the WeBS surveys.

Peak count and mean count summary

- 1.4.34 The overall peak and mean count (combining high and low tide results) for all target and key species are provided below, by species to show the most commonly recorded species and to show peak and means for comparison within the Evaluation section, for relative importance (particularly in relation to designated sites).
- 1.4.35 Oystercatcher (*Haematopus ostralegus*) and lapwing (*Vanellus vanellus*) were the species recorded with the highest overall peak counts and both at high and low tide. Black-headed gull (*Chroicocephalus ridibundus*), wigeon (*Mareca penelope*) and dunlin (*Calidris alpina*) counts were also large overall and on each tide, considering the recorded flock of indeterminable dunlin/sanderling most likely consists of a majority of dunlin.

Overall Peak and Mean Count by Species (Tides Combined)



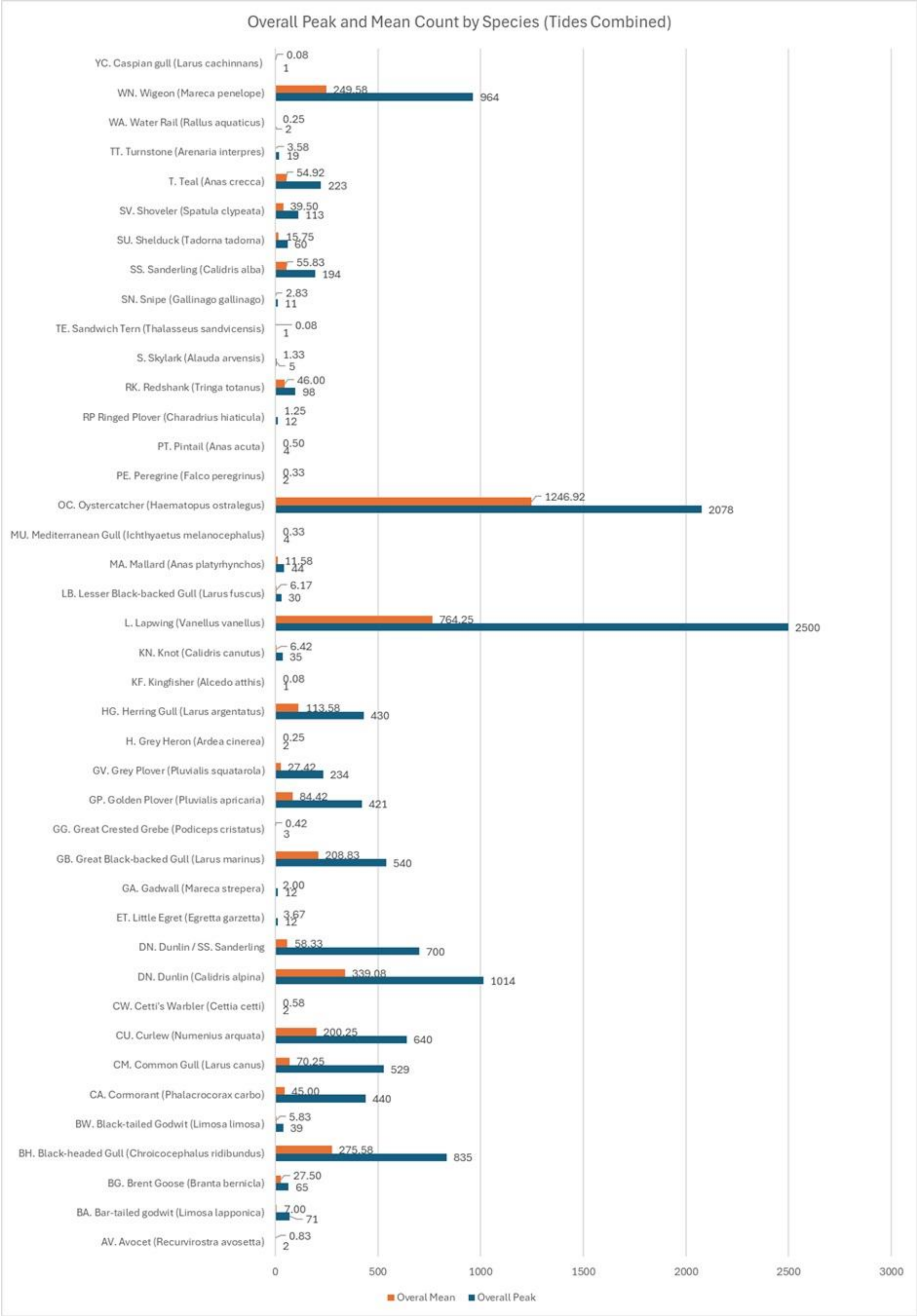
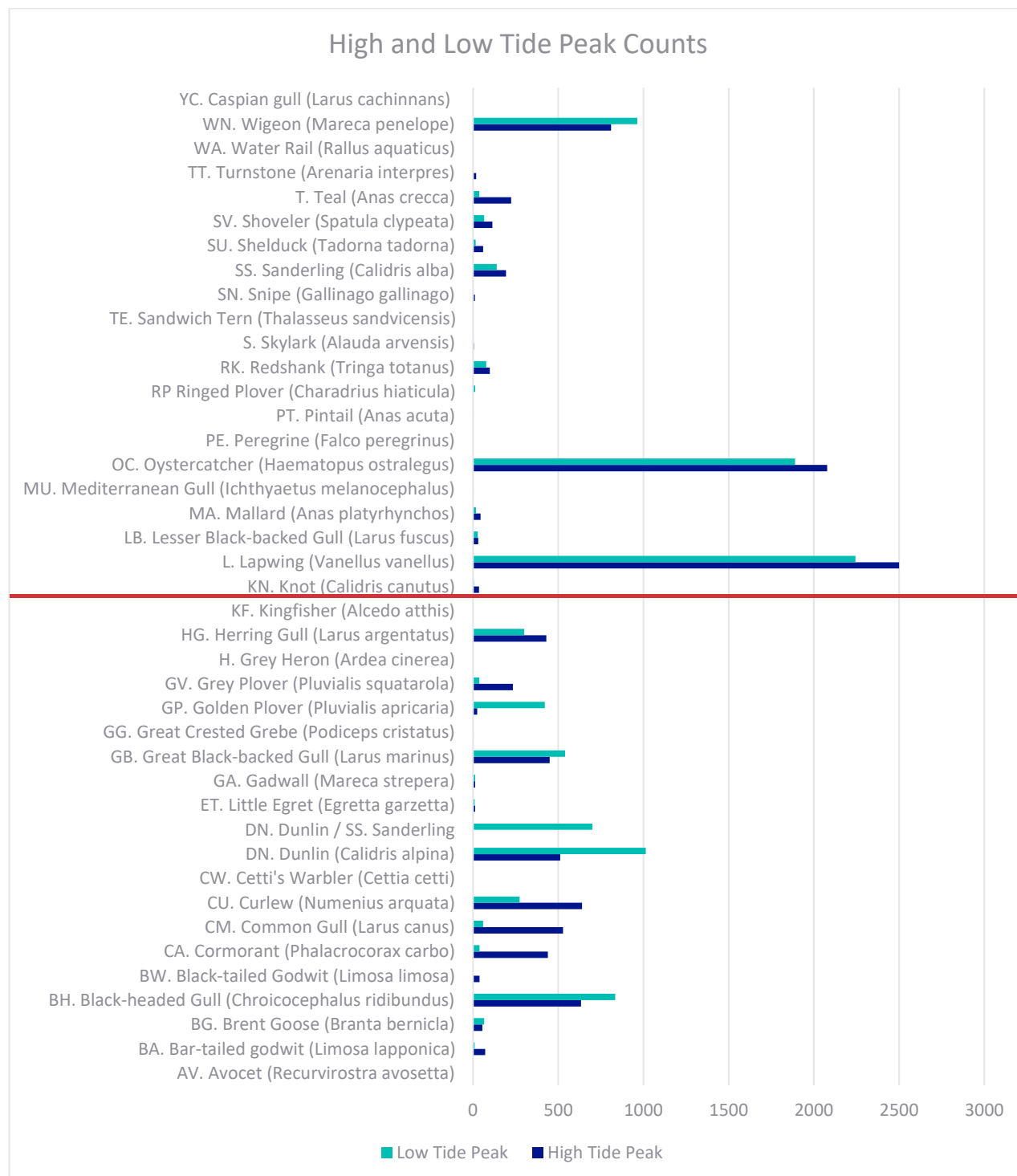


Plate 1.3 Overall peak and mean count for waterbird and key species (tide results combined)

High and low tide summary

1.4.36 — The overall peak and mean count for all target species in relation to tidal survey (i.e. high tide or low tide count) is shown to illustrate trends in variation in the use of the Survey Area between tides. Where significant differences are shown between mean and peak by a key species, these are addressed within the Evaluation section if relevant.



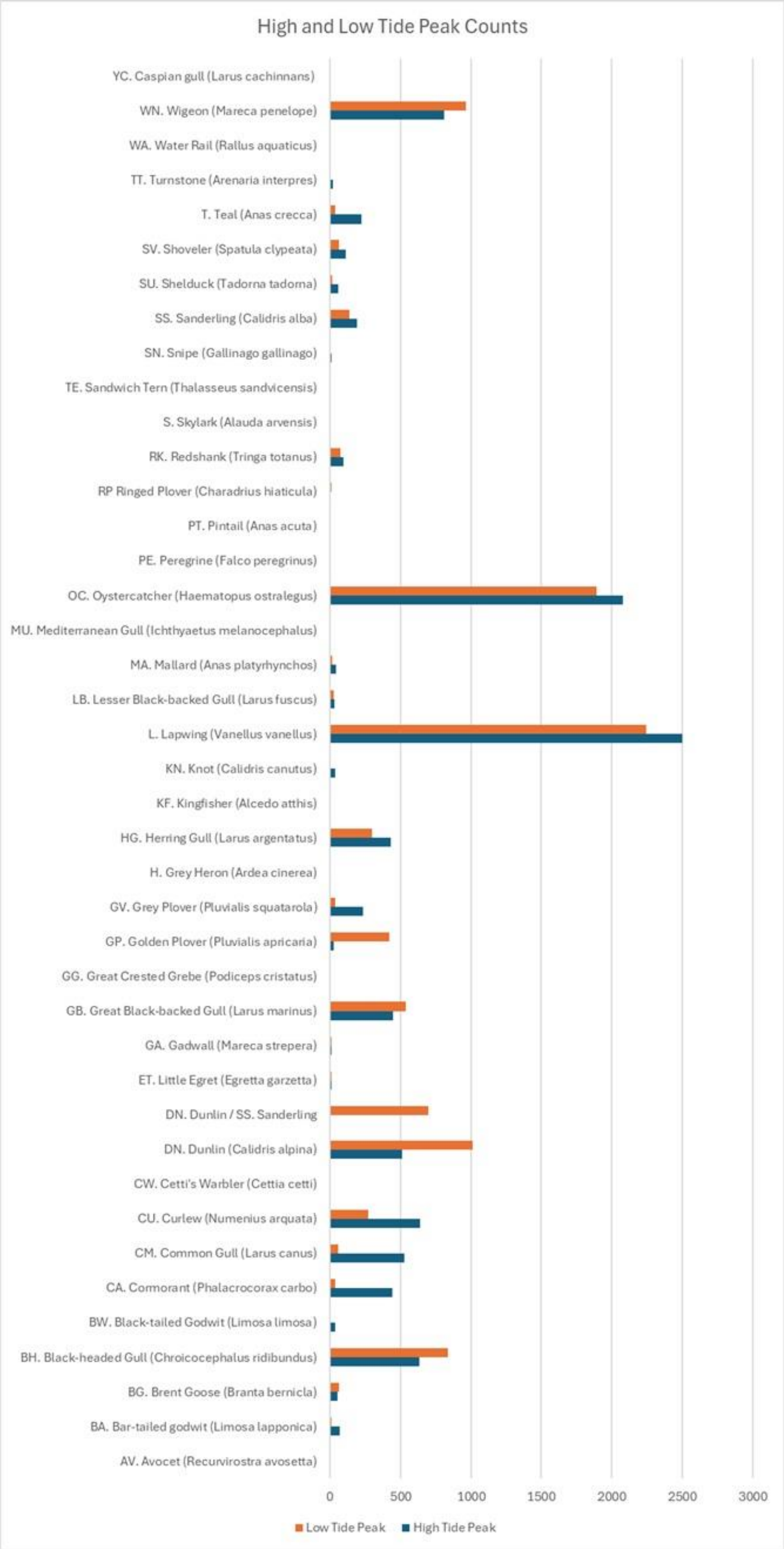
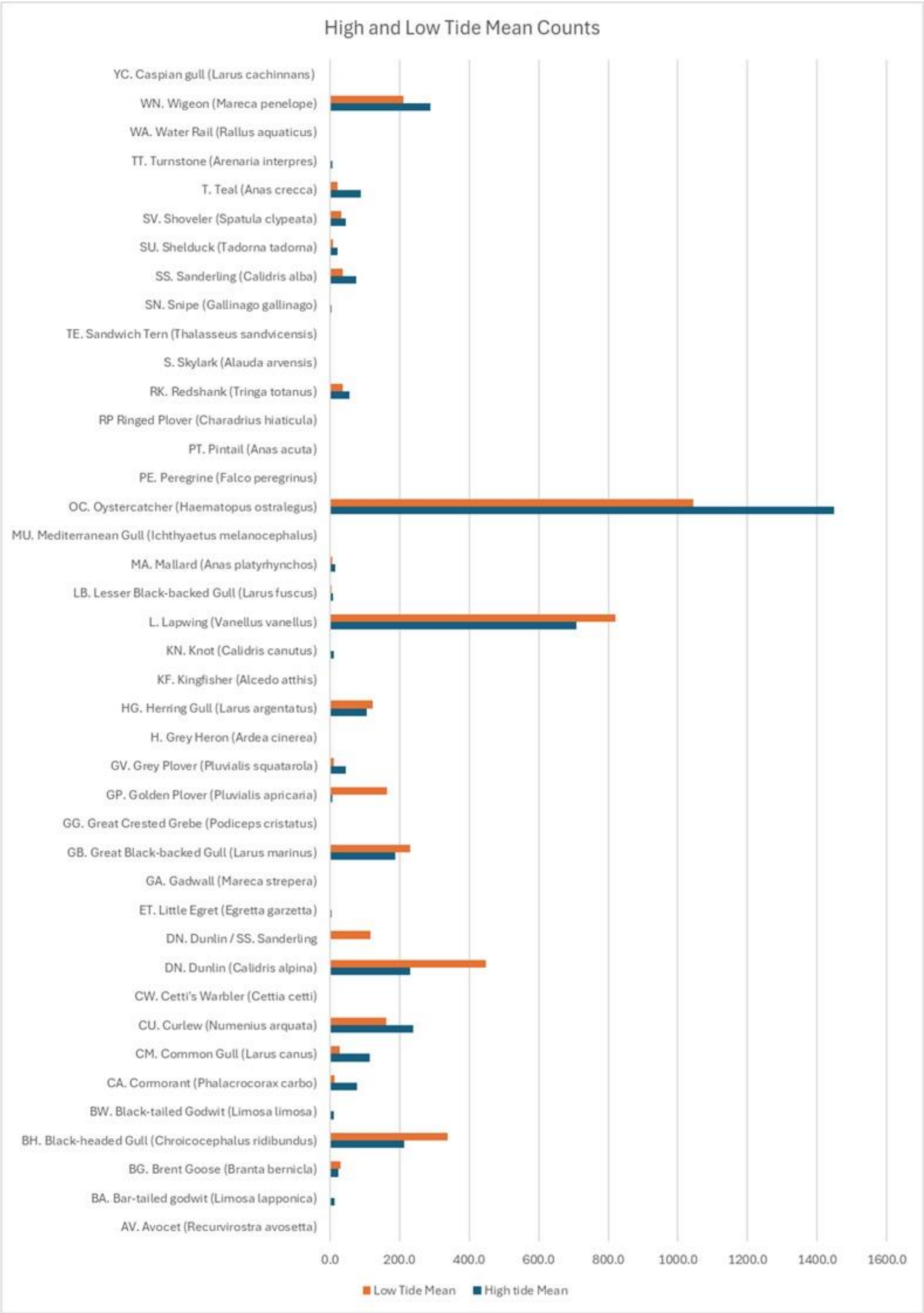


Plate 1.4 Intertidal (high and low) peak counts for waterbird and key species



High and Low Tide Mean Counts

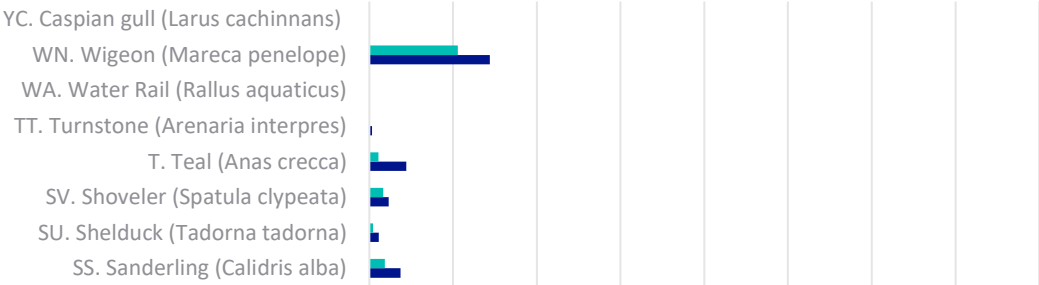


Plate 1.5 Intertidal (high and low) mean counts for waterbird and key Species

1.4.37 1.4.36 Large high tide peaks for some species (i.e. curlew (*Numenius arquata*), lapwing, oystercatcher, wigeon) represent the large roosts recorded in November through February, though notably the highest counts occur in different months for different species with no one month being attributable to the majority of peak counts.

1.4.38 1.4.37 Species where low tide peaks are notably larger than the high tide peak (i.e. for black-headed gull, dunlin and golden plover) may correlate with increased use of the mudflats and waterline for foraging.

1.4.39 1.4.38 Species where high and low tide peaks are similar may represent birds remaining within the Survey Area across tides, potentially moving with tidal patterns to roost and forage within adjacent areas.

1.4.40 1.4.39 The mean counts shown that oystercatcher and lapwing are the most generally abundant species with the largest mean counts.

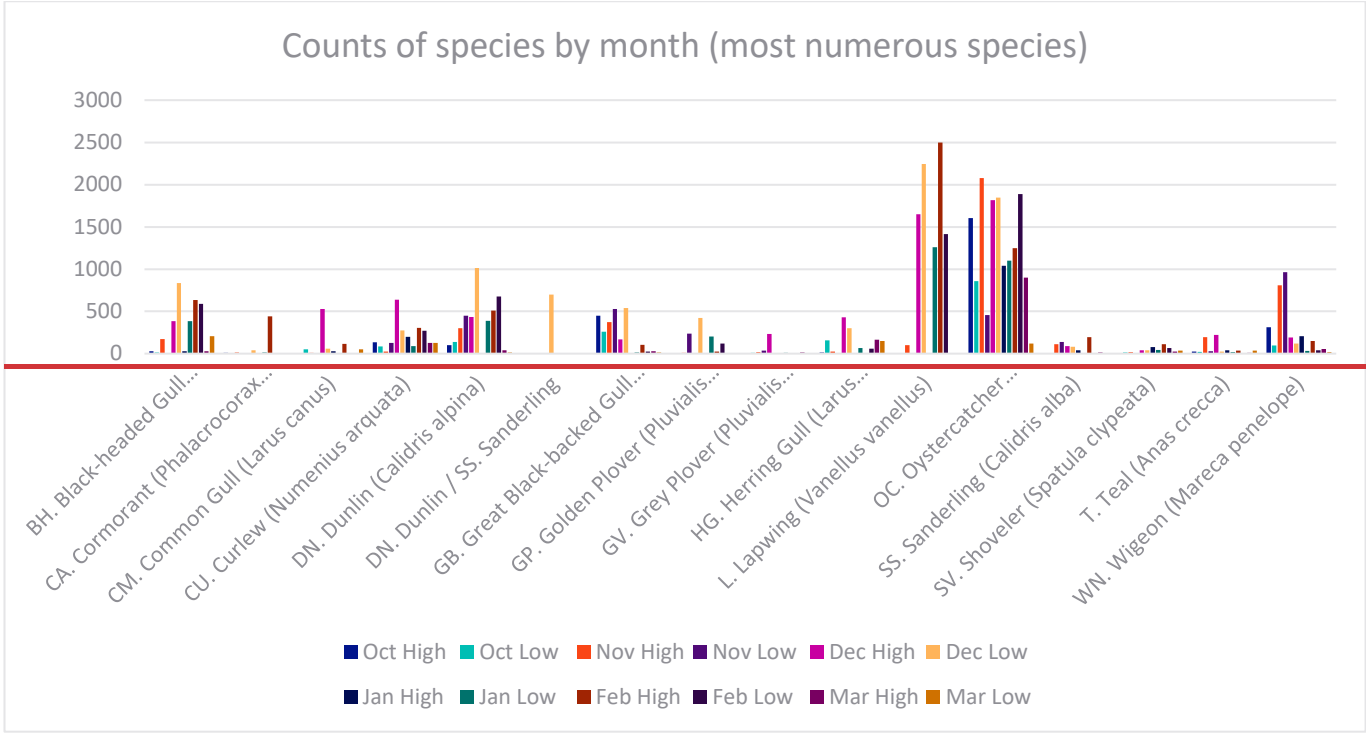
1.4.41 1.4.40 Mean counts between high and low tide appear to reflect trends in peak counts with some subtle variations – i.e. curlew mean tidal counts appear similar despite the higher curlew high tide peak count.

1.4.42 1.4.41 Notably some species have much lower relative mean counts in comparison to peaks, such as wigeon, indicating the fluctuating presence of these species.

Temporal (monthly) summary

1.4.43 1.4.42 The results for the target species have been presented by month to show key seasonal periods for the assemblage as a whole and any potentially relevant distribution in trends of species throughout the season. [Separate graphs are presented for the most numerous species \(peak counts over 100, in Plate 1.6\) and the remaining target species \(counts under 100 excluding species which only occur on a single count or month, in Plate 1.7\) to assist visualisation.](#) Separate graphs are presented for the most numerous species (peak counts over 100, in Plate 1.6) and the remaining target species (counts under 100 excluding species which only occur on a single count or month, in ~~Plate 1.6~~ Plate 1.7) to assist visualisation.

1.4.44 The total number of waterbirds using the Survey Area each month is also shown (as Plate 1.8), to show overall the trends in Survey Area use by numbers of birds across the season.



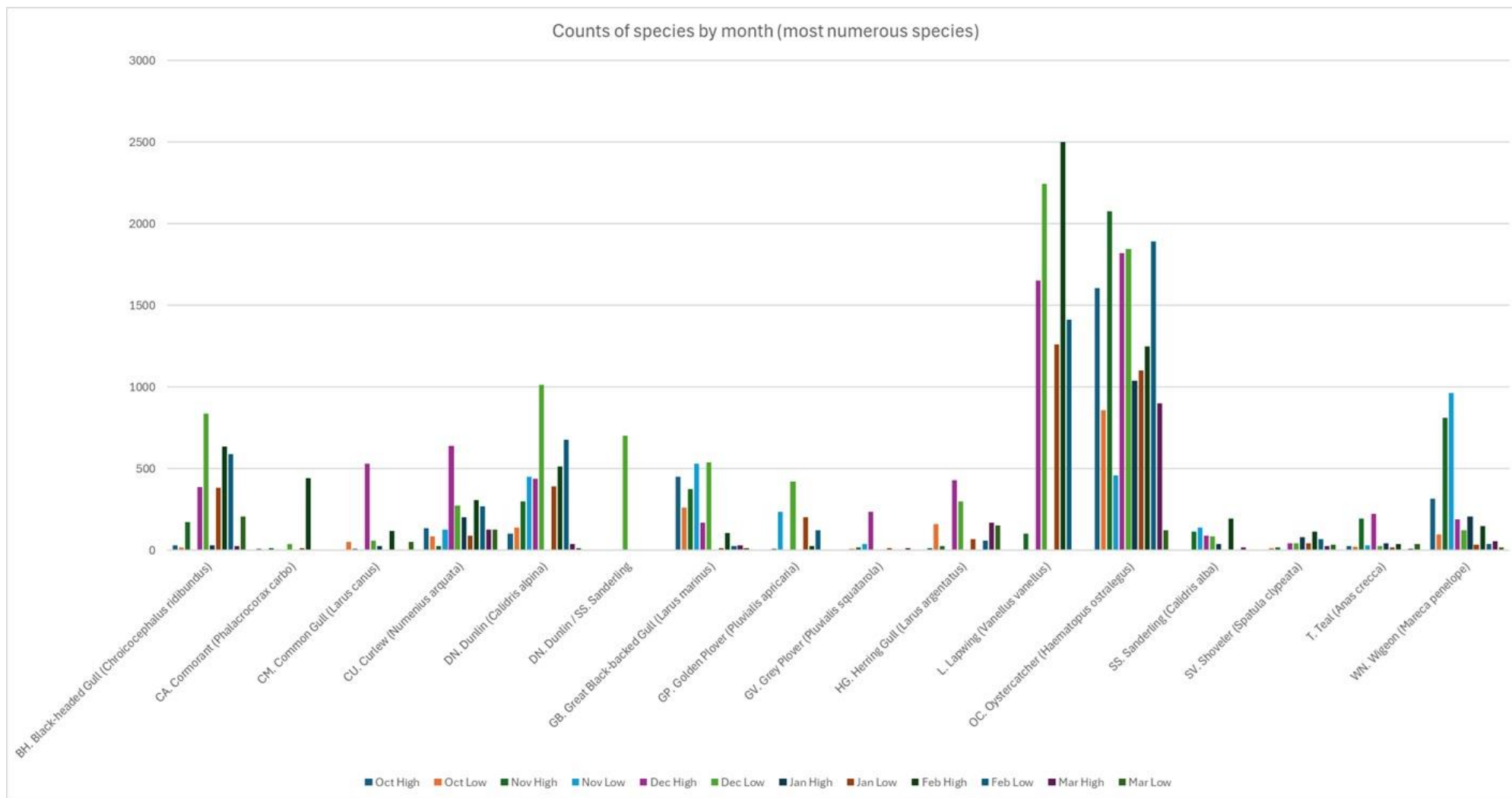
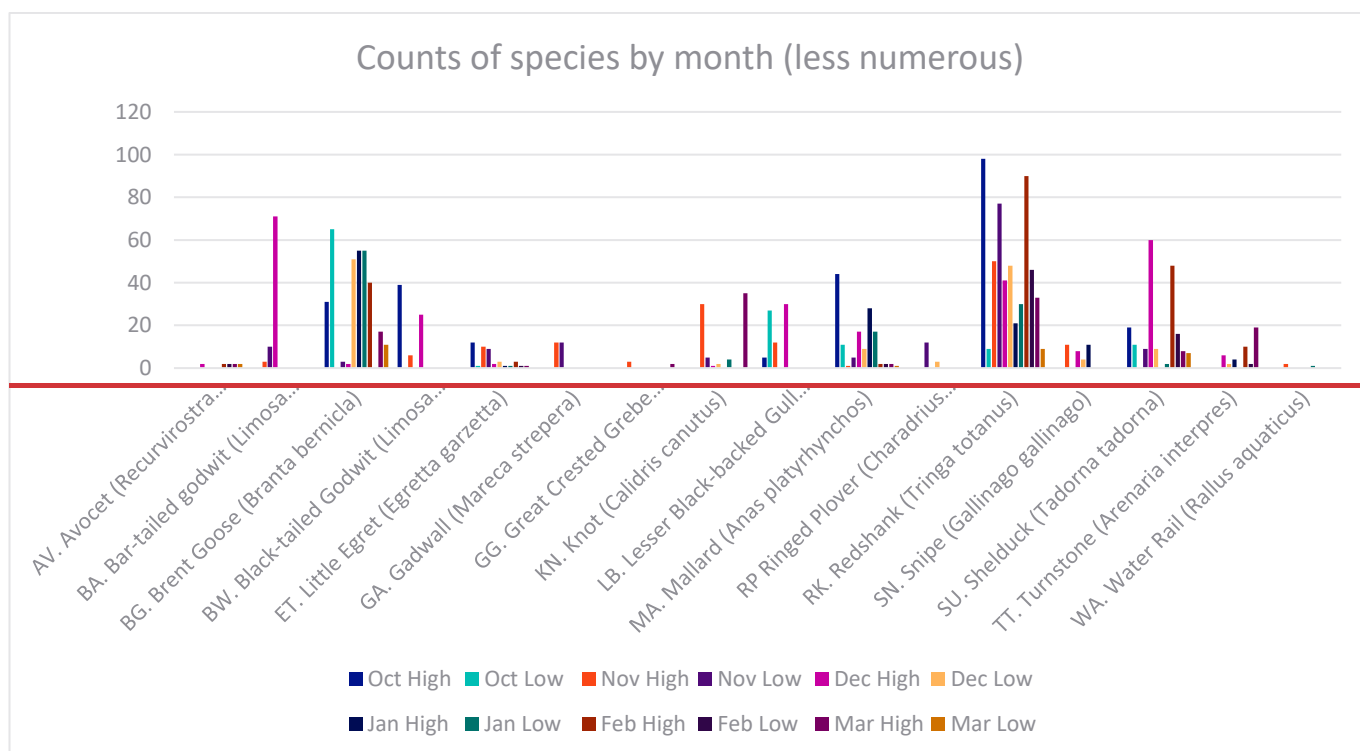


Plate 1.6 Monthly total recorded waterbird and key species (most numerous species)

1.4.451.4.43 The frequently recorded large counts of lapwing and oystercatcher can be clearly seen, with high counts during most months. Large oystercatcher counts are generally consistent during the entire survey period, while the largest lapwing numbers occur during November to February.

1.4.461.4.44 Other species such as black-headed gull, cormorant (*Phalacrocorax carbo*), curlew, dunlin, great black-backed gull (*Larus marinus*) and wigeon are recorded on most survey visits with many of these species showing variation in recorded numbers between months. Species such as dunlin, wigeon, cormorant, curlew and herring gull (*Larus argentatus*) have a simple peak distribution 'curve' with large peaks occurring in contrast to a usual comparatively smaller count. Species such as black-headed gull, great black-backed gull and sanderling have more consistent large counts, though variation in numbers does occur between months or have periodic larger consistent counts for several months.

1.4.47 Species such as shoveler (*Spatula clypeata*) and sanderling are regularly recorded but with relatively consistent counts and a more stable trend in comparison to other species. Remaining species occur as large recordings on single or a few occasions (cormorant, grey plover (*Pluvialis squatarola*), golden plover.



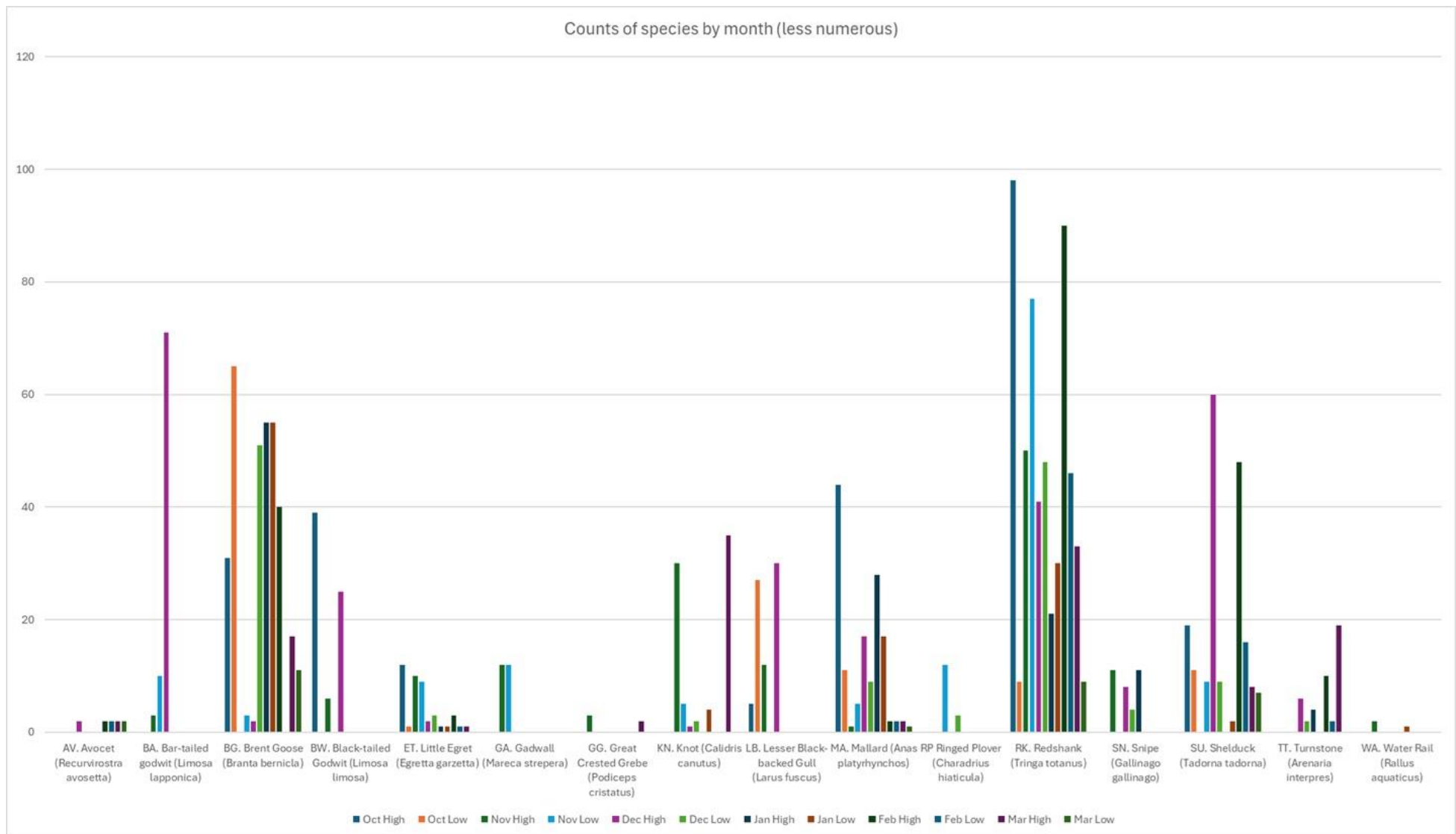


Plate 1.7 Monthly total recorded waterbird and key species (excluding most numerous species)

[1.4.48](#)[1.4.45](#) Major variations in monthly use by bar-tailed godwit (*Limosa lapponica*) and black-tailed godwit (*Limosa limosa*) are among the most obvious (large peaks in a few months, then not recorded on most visits) with some species such as brent goose (*Branta bernicla*), knot (*Calidris canutus*), mallard (*Anas platyrhynchos*), shelduck (*Tadorna tadorna*), snipe (*Gallinago gallinago*) regularly occurring but with fluctuating numbers between months.

[1.4.49](#)[1.4.46](#) The inconsistent presence of species such as avocet (*Recurvirostra avosetta*), great crested grebe (*Podiceps cristatus*), ringed plover (*Charadrius hiaticula*), gadwall and others can be seen with these species absent across some months.

[1.4.50](#)[1.4.47](#) The total number of all intertidal target and key species is shown below to show an indication of overall use of the Survey Area by month.

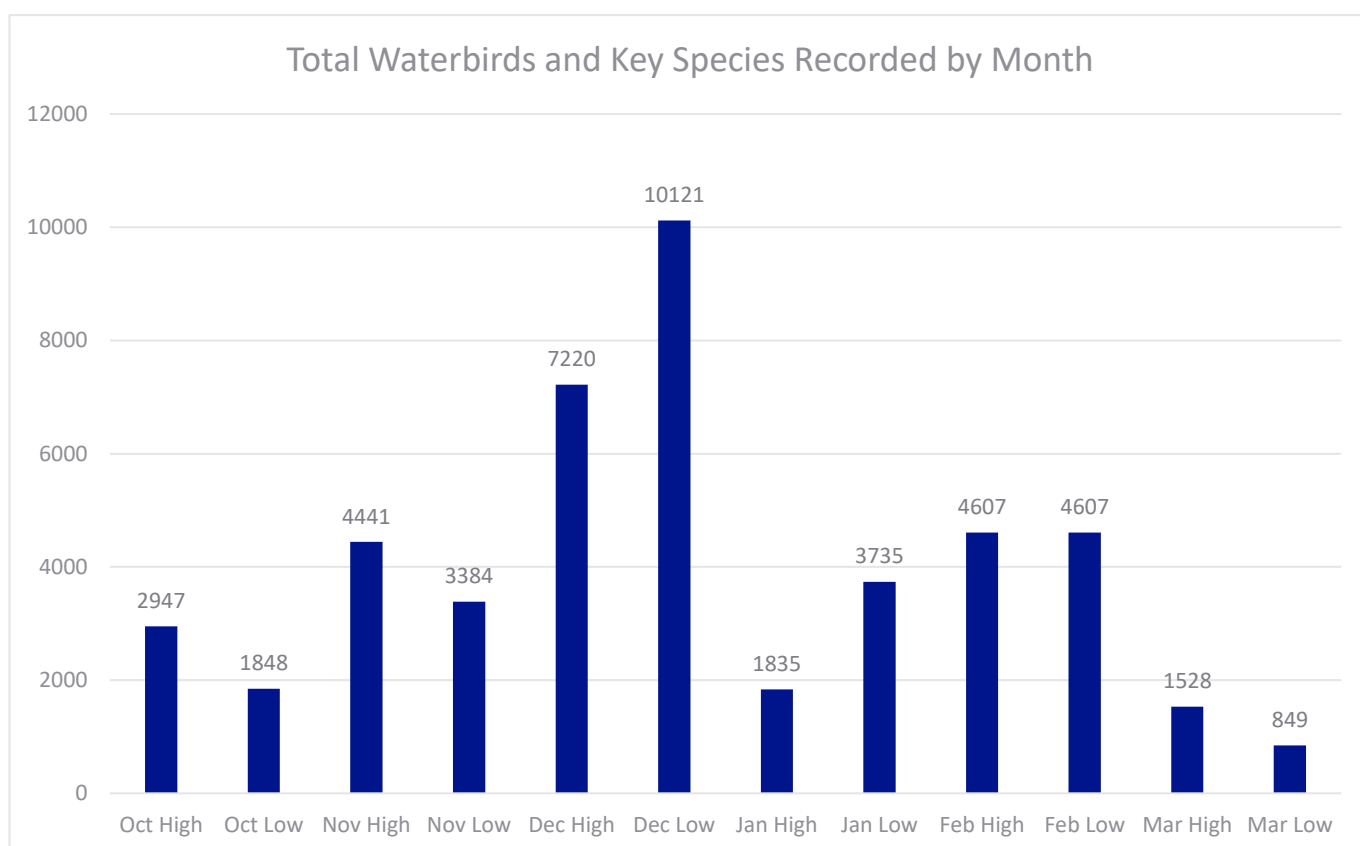


Plate 1.8 Monthly recorded total combined waterbird and target species

[1.4.48](#) The general trend for higher recorded total birds during the middle of the winter season can be seen with some lower counts in January against trend, and particularly large numbers recorded during the November high tide. Overall, however the lower counts in October and March support the trend.

[1.4.51](#)[1.4.49](#) Use by numbers of birds between high and low tide is generally similar, showing the use of the area during both tides by similar (and potentially the same for some species) aggregations of birds.

Existing Disturbance

[1.4.52](#)[1.4.50](#) Observations of key existing disturbance sources to birds were recorded within the Survey Area when present. Such disturbance sources included:

- Windsurfers present near the shoreline at low tide;
- Presence of bait diggers on mudflats;
- Walkers occasionally present on shore, noted on at least one occasion with dogs off lead; and
- Boats entering the River Stour mouth.

[1.4.53](#)[1.4.51](#) On most occasions, birds had a flight response to new disturbance events (i.e. a boat entering the River Stour from the sea), however the size and extent of Pegwell Bay allowed birds to resettlement elsewhere within the intertidal area.

[1.4.54](#)[1.4.52](#) Frequent presence of walkers was observed along the PRoW on the foreshore which runs particularly close to the lagoon and saltmarsh areas. Birds appeared generally tolerant (tending to be distributed along the lagoon edge or saltmarsh away from the PRoW), although dogs off lead and entering the saltmarsh were observed on at least one occasion.

Inland winter field survey

[1.4.55](#)[1.4.53](#) A total of 83 species were recorded within the inland areas during the 2023/2024 wintering bird survey.

Peak count and mean count summary

[1.4.56](#)[1.4.54](#) The overall peak and mean count for all recorded notable species are provided below, to show the most commonly recorded species and to show peak and means for comparison within the Evaluation, for relative importance.

[1.4.57](#)[1.4.55](#) Note that charts of both peak (Plate 1.9 Inland peak counts for notable species) and mean (Plate 1.10) are shown overleaf due to their size (number of species detailed).

[1.4.58](#)[1.4.56](#) Large flocks of aggregating winter passerines such as starling (*Sturnus vulgaris*), fieldfare (*Turdus pilaris*), redwing (*Turdus iliacus*) comprise some of the largest overall peak counts with woodpigeon (*Columba palumbus*) also abundant. Large skylark (*Alauda arvensis*) and meadow pipit (*Anthus pratensis*) counts are also notable.

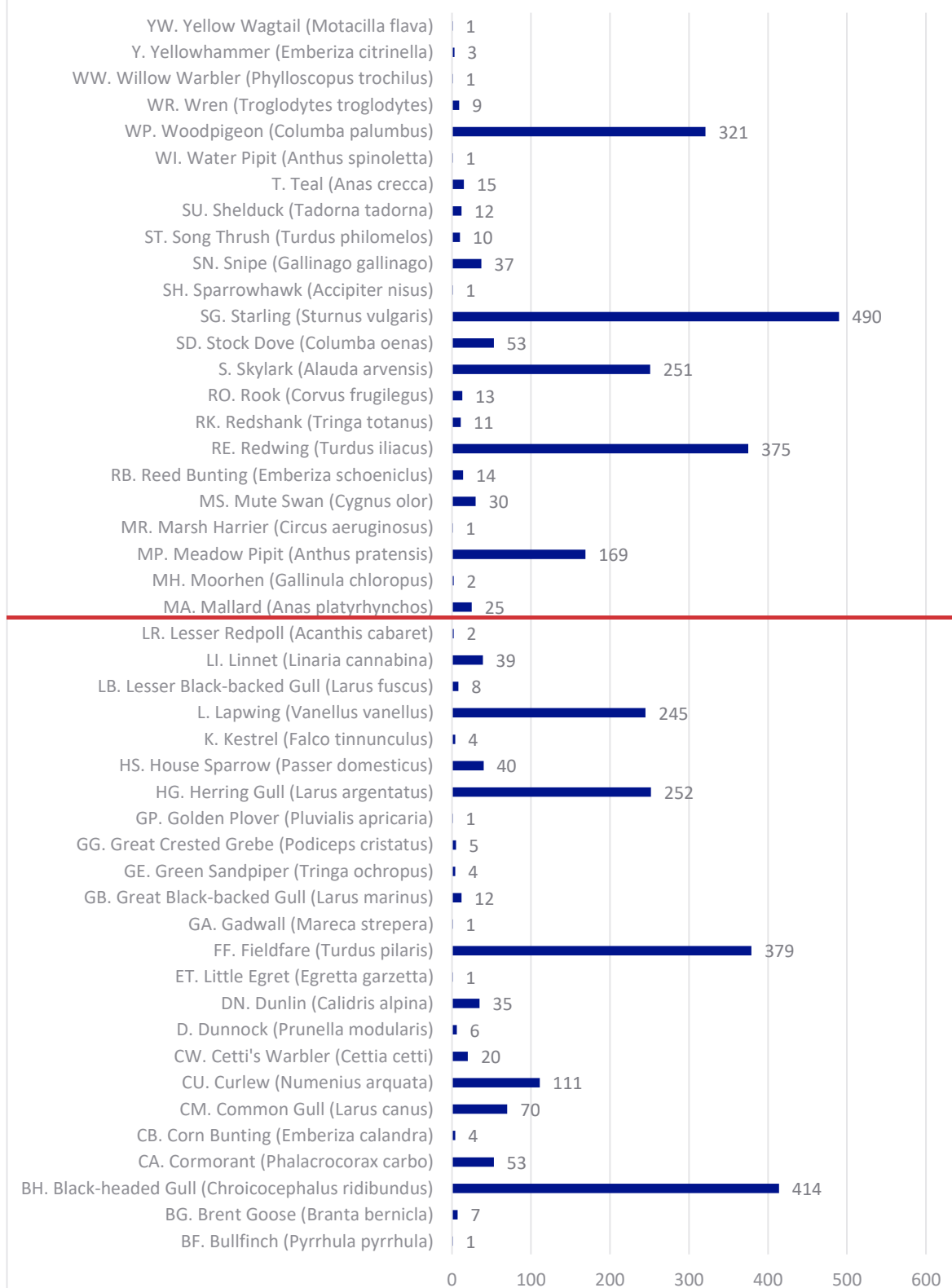
[1.4.59](#)[1.4.57](#) Waterbird species do however also comprise some of the largest peak counts including black-headed gull, herring gull, lapwing.

[1.4.60](#)[1.4.58](#) Some smaller peak counts are also notable, comprising scarcer species such as green sandpiper (*Tringa ochropus*) and water pipit (*Anthus spinoletta*), or inland use by species more regularly recorded within the intertidal area such as brent goose, curlew, dunlin, redshank, snipe, shelduck and teal (*Anas crecca*).

~~1.4.61~~1.4.59 Black-headed gull and starling have the largest mean counts, showing the frequent presence of large numbers of these species. The mean of fieldfare, redwing and woodpigeon have proportionality lower means in proportion to their peaks, indicating these species are comparatively less regularly occurring than black-headed gull and starling.

~~1.4.62~~1.4.60 Herring gull, skylark and meadow pipit have large means showing frequent recording of large groups of these species. By contrast the small mean counts of cormorant, common gull (*Larus canus*), curlew, dunlin and house sparrow (*Passer domesticus*) are smaller proportionally than their mean counts, showing infrequent recording. This pattern occurs for many of the infrequently recorded species, but it is more noticeable due to the larger peak counts of these aforementioned species.

Inland notable species peak counts



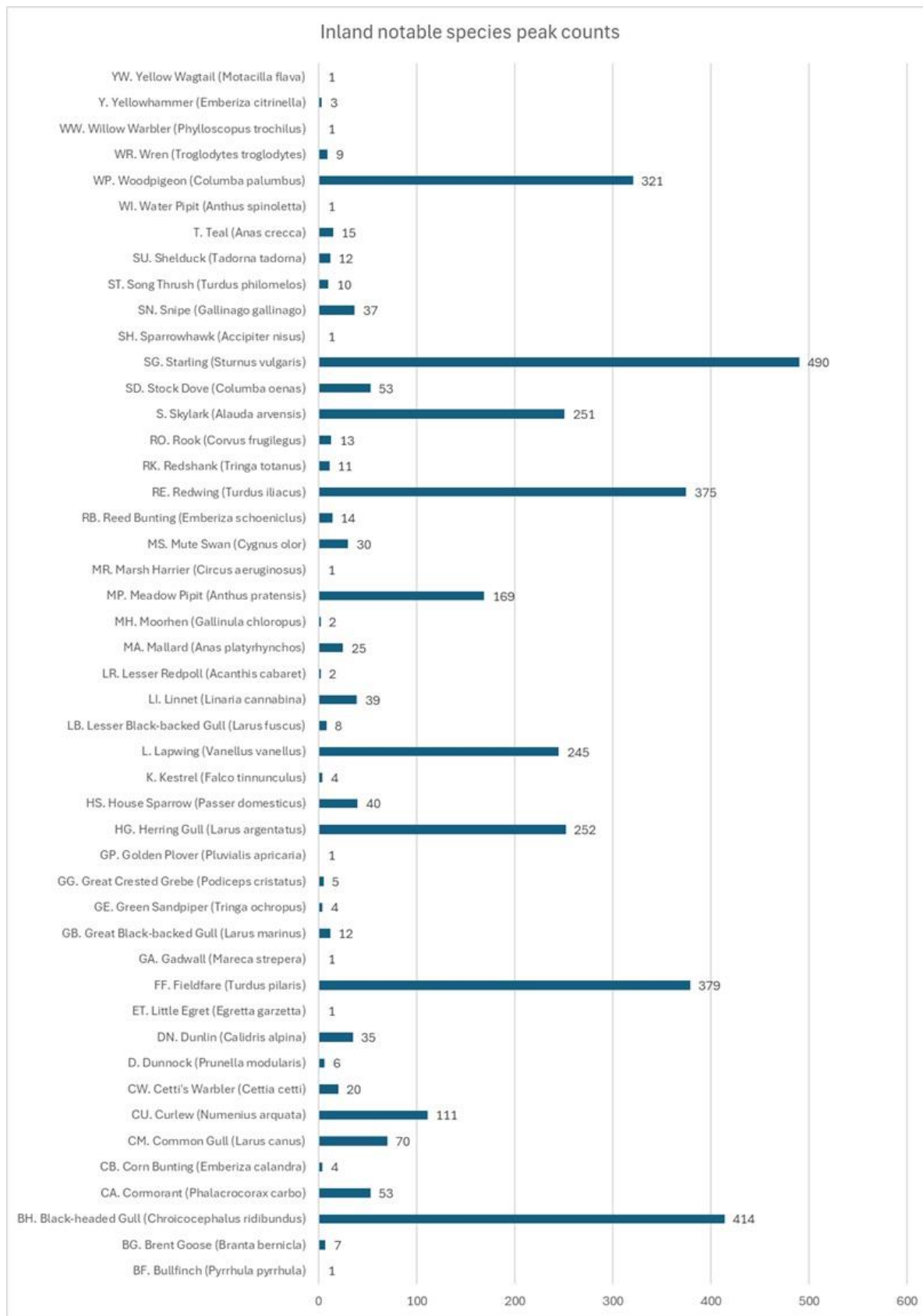
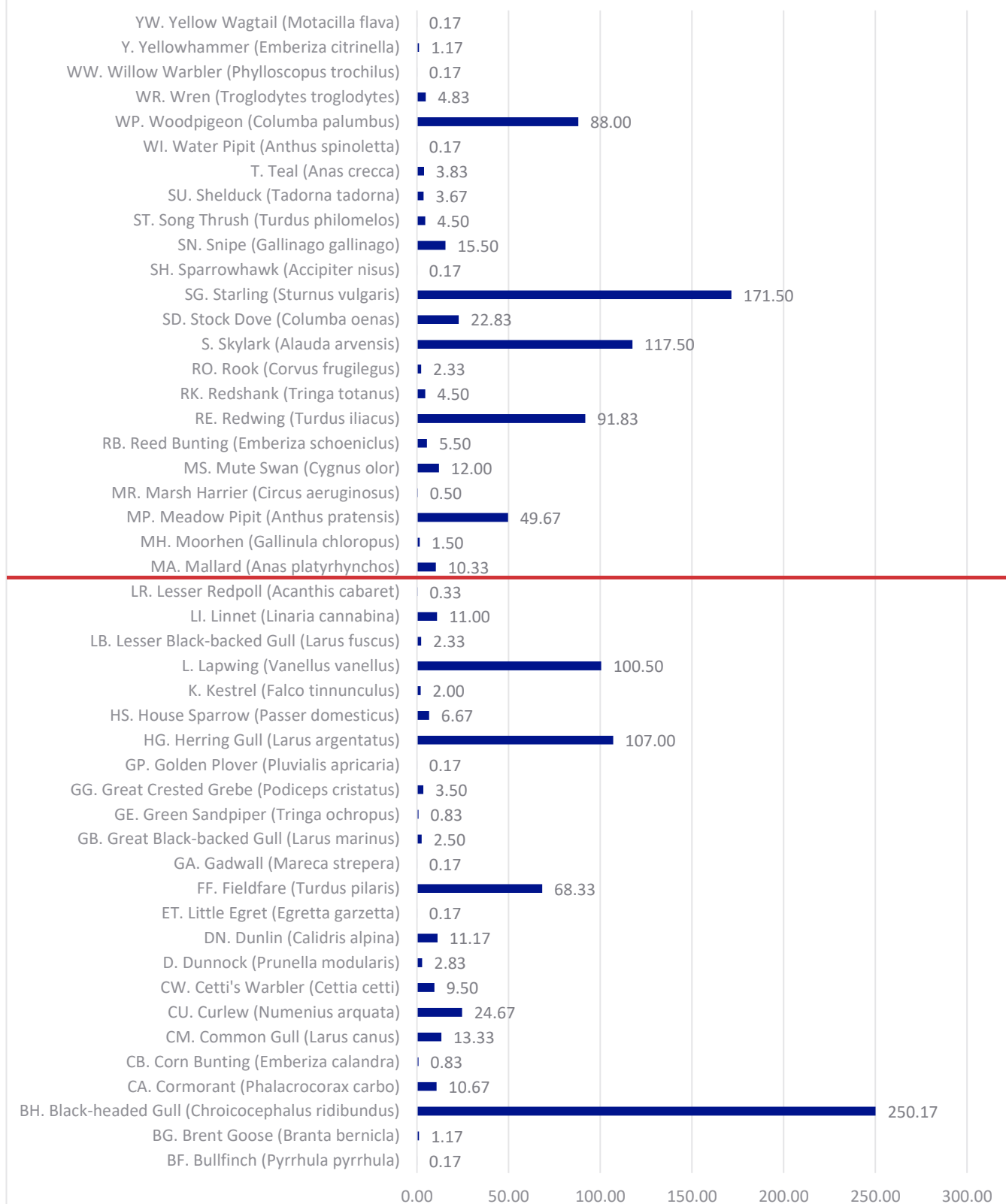


Plate 1.9 Inland peak counts for notable species

Inland notable species mean counts



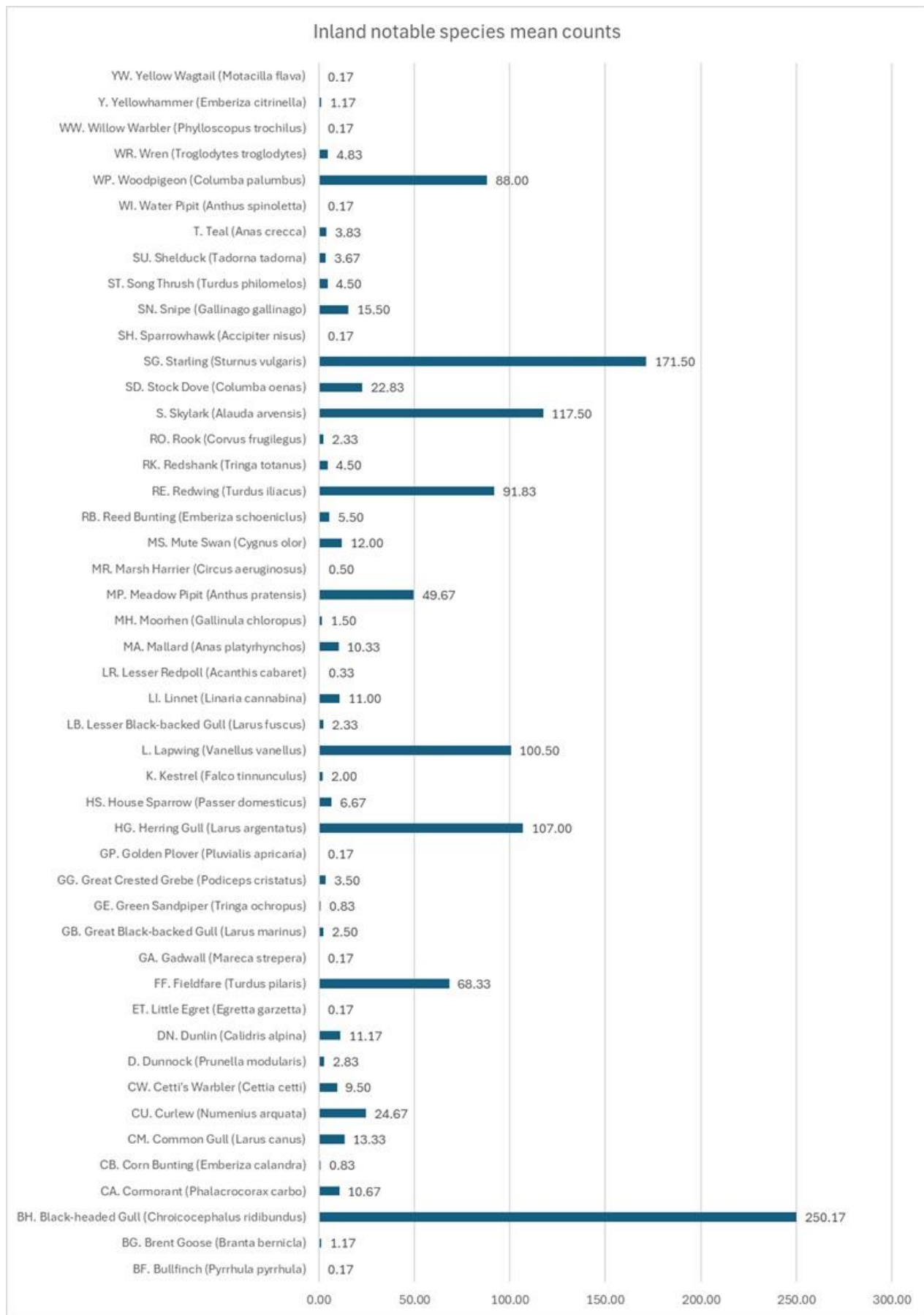


Plate 1.10 Inland mean counts for notable species

Temporal (monthly) summary

[1.4.63](#)[1.4.61](#) The variation between species peaks, means and diversity for the inland survey area did not vary as much as it did for the tidal areas, although notably peak waterbird counts tended to occur during the mid-Winter period.

[1.4.64](#)[1.4.62](#) Seasonal patterns of many species tended to be attributable to a single visit having a large peak count, proportionally much larger than the other visits. The peak count visit month often varied between different species, disrupting the view of an overall attributable trend for overall bird aggregations.

[1.4.65](#)[1.4.63](#) Key trends or observations are addressed within Section 1.5 (Evaluation).

Distribution

[1.4.66](#)[1.4.64](#) The recording of birds within the inland areas generally followed the expected associations of species with their respective habitats.

[1.4.67](#)[1.4.65](#) Some key observations are as follows:

- Aggregations of most waterbird species were recorded in flooded fields to the south of the River Stour canal and in the southwest fields of Parcel 244. A few species were more widely distributed (lapwing) or occurred in other areas (i.e. brent goose in field 336).
- Field boundary ditches support small numbers of waterbirds such as mallard as well as riparian-associated passerines.
- Arable fields were generally found to consist of winter wheat or equivalent cereals that are generally of limited value for birds, although Winter foraging parties of species such as meadow pipit, skylark and linnet (*Linaria cannabina*) were observed.
- The River Stour canal itself generally held few birds but a diversity of species was noted on the adjacent scrapes and nearby flooded areas.

[1.4.68](#)[1.4.66](#) Distribution observations are addressed further within Section 2.4.

Nocturnal survey

[1.4.69](#)[1.4.67](#) A total of 32 species (excluding birds not identified to species level) were recorded during the 2023/2024 nocturnal bird survey.

[1.4.70](#)[1.4.68](#) Note that while the recorded species assemblage includes passerines, the focus of the survey was on waterbirds (especially nocturnal activity of golden plover and other waterbirds where use of inland areas may differ to diurnal use) and primarily nocturnally active species (e.g. owls, nocturnal migrants) and their use of the inland areas.

[1.4.71](#)[1.4.69](#) The presentation of results below is focussed on waterbirds and other key nocturnal active species groups (e.g. owls) as the target species for the nocturnal surveys.

[1.4.72](#)[1.4.70](#) Full species lists and results can be found within **Annex 2.C.2**.

Peak count and mean count summary

[1.4.73](#)[1.4.71](#) The overall peak and mean counts for all recorded target species are provided below, to show the most commonly recorded species and to show peak and mean for comparison within the Evaluation, to allow assessment of the relative importance of the peaks.

Nocturnal peak counts for notable species

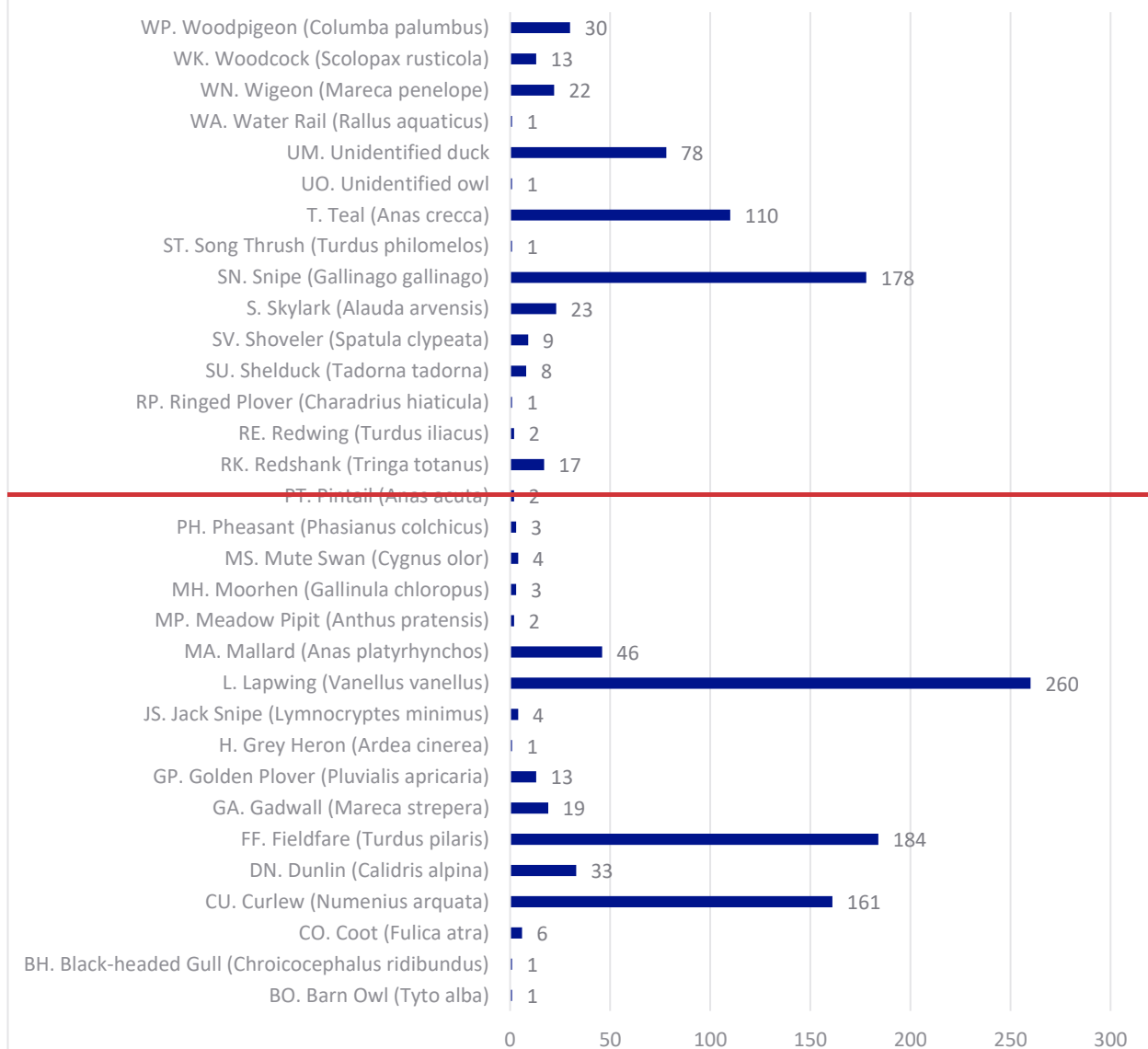
[1.4.74](#)[1.4.72](#) Curlew, lapwing, snipe, teal and fieldfare have the highest peak counts, all in the region of a 100-200 peak count.

[1.4.75](#)[1.4.73](#) The peak of snipe is particularly notable, being much larger than the diurnal recorded peak, with curlew, lapwing and teal counts also high and representing a large proportion of the recorded intertidal counts. A count of unidentified duck may be attributable to a number of species but has been kept as its own count, reviewed later in Evaluation.

[1.4.76](#)[1.4.74](#) Redshank, dunlin, golden plover, woodcock (*Scolopax rusticola*), gadwall, mallard, woodpigeon and skylark were recorded as having peak counts in the region of ten to 50, indicating the recording of scattered individuals and small flocks.

[1.4.77](#)[1.4.75](#) The remaining species were recorded as counts of less than ten, generally indicating individuals.

Nocturnal notable species peak counts



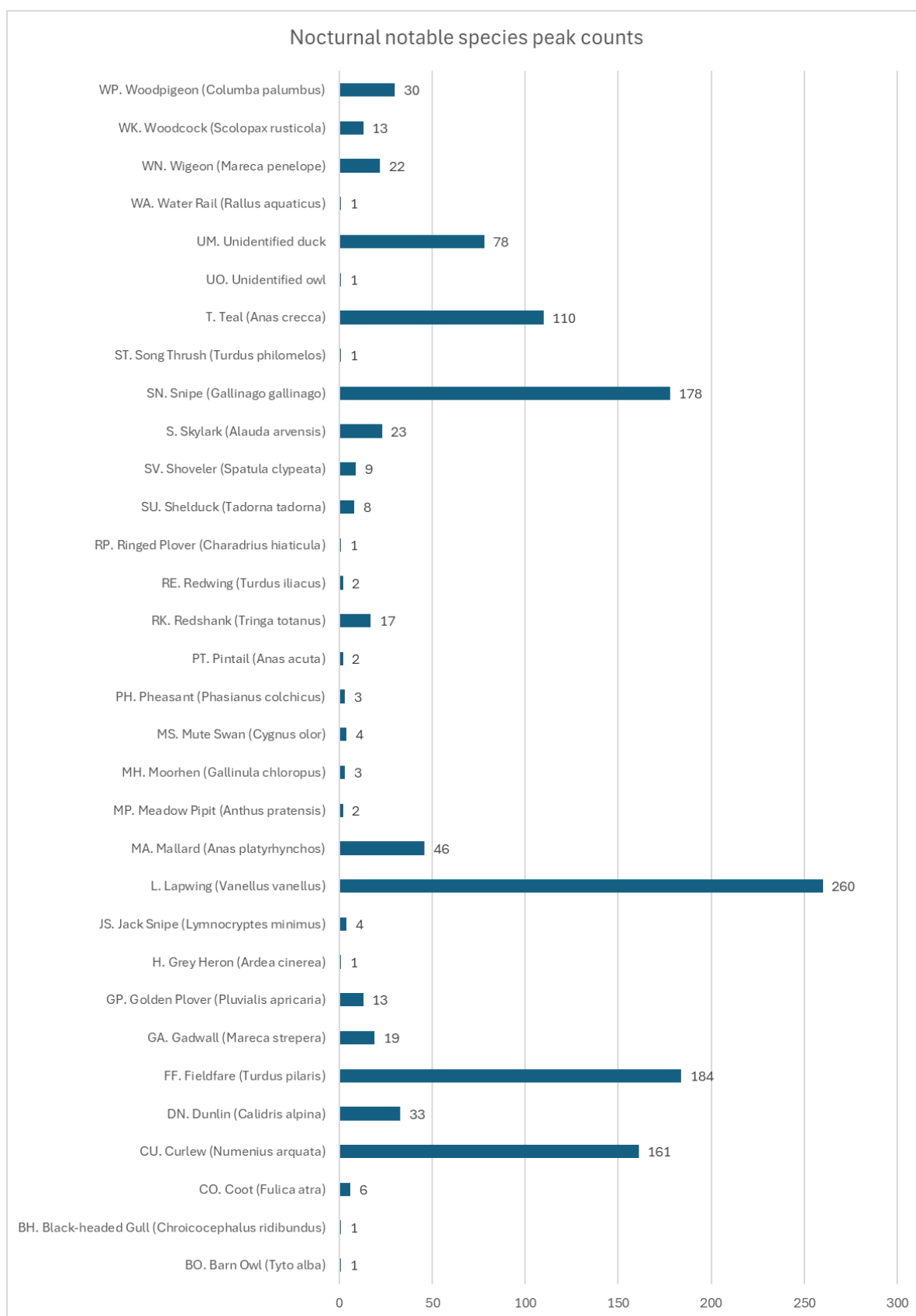


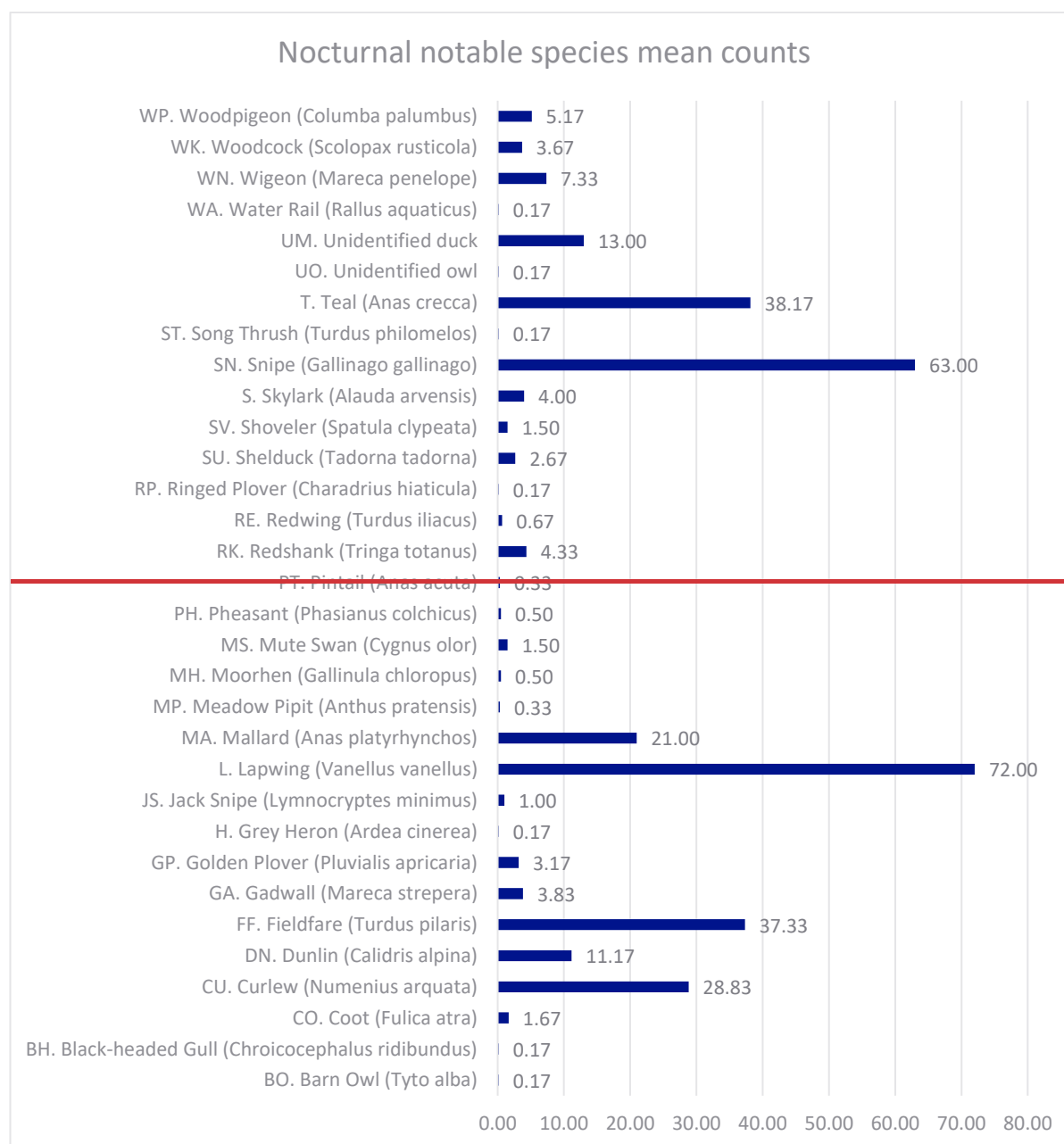
Plate 1.11 Nocturnal peak counts for notable species

Nocturnal mean counts for notable species

[1.4.76](#) [1.4.76](#) Curlew, lapwing, snipe, teal and fieldfare are the most abundant recorded species overall, as reflected by these species having the largest mean counts. The lapwing, snipe and mallard mean counts are proportionally larger than the means of other species (particularly snipe), indicating their frequent recording on multiple visits.

[1.4.77](#) [1.4.77](#) The curlew, fieldfare and unidentified duck means are proportionally lower than their peak count due to the recording on a single or few visits, or much lower counts on visits (excluding peak count visit).

[1.4.80](#) [1.4.78](#) Mean counts for nocturnal surveys otherwise broadly follow the trend for peak counts, indicating that the species with large peak counts are recorded fairly consistently, and species with low peak counts are recorded generally in small numbers.



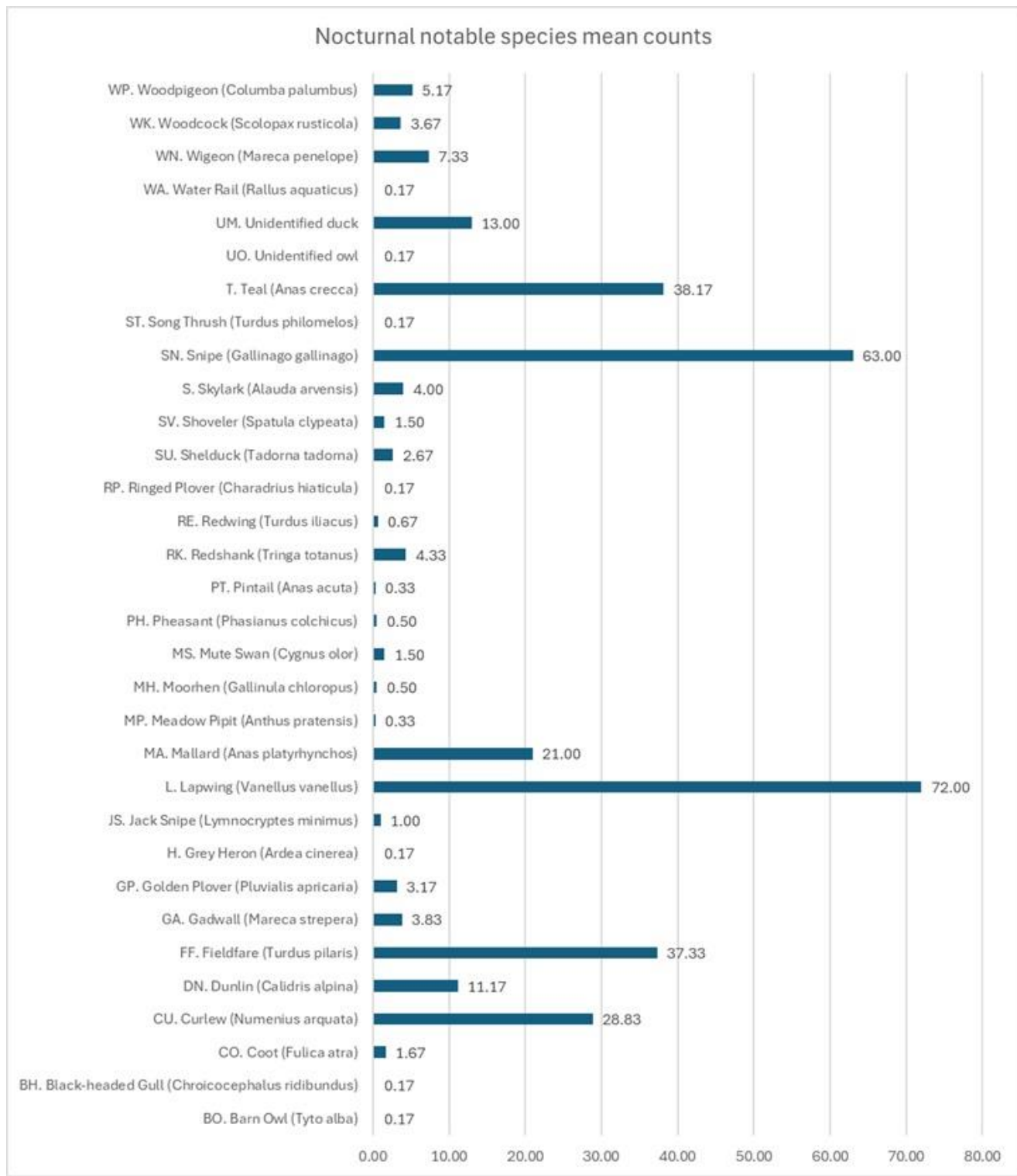


Plate 1.12 Nocturnal mean counts for notable species

Temporal (monthly and diurnal comparison) summary

[1.4.81](#)[1.4.79](#) The peak counts for different species were spread throughout the survey period, often occurring on different survey visits.

[1.4.82](#)[1.4.80](#) Peak counts for curlew, lapwing, fieldfare and snipe occurred during December to January, while the teal peak count occurred in February. Large numbers of ducks were

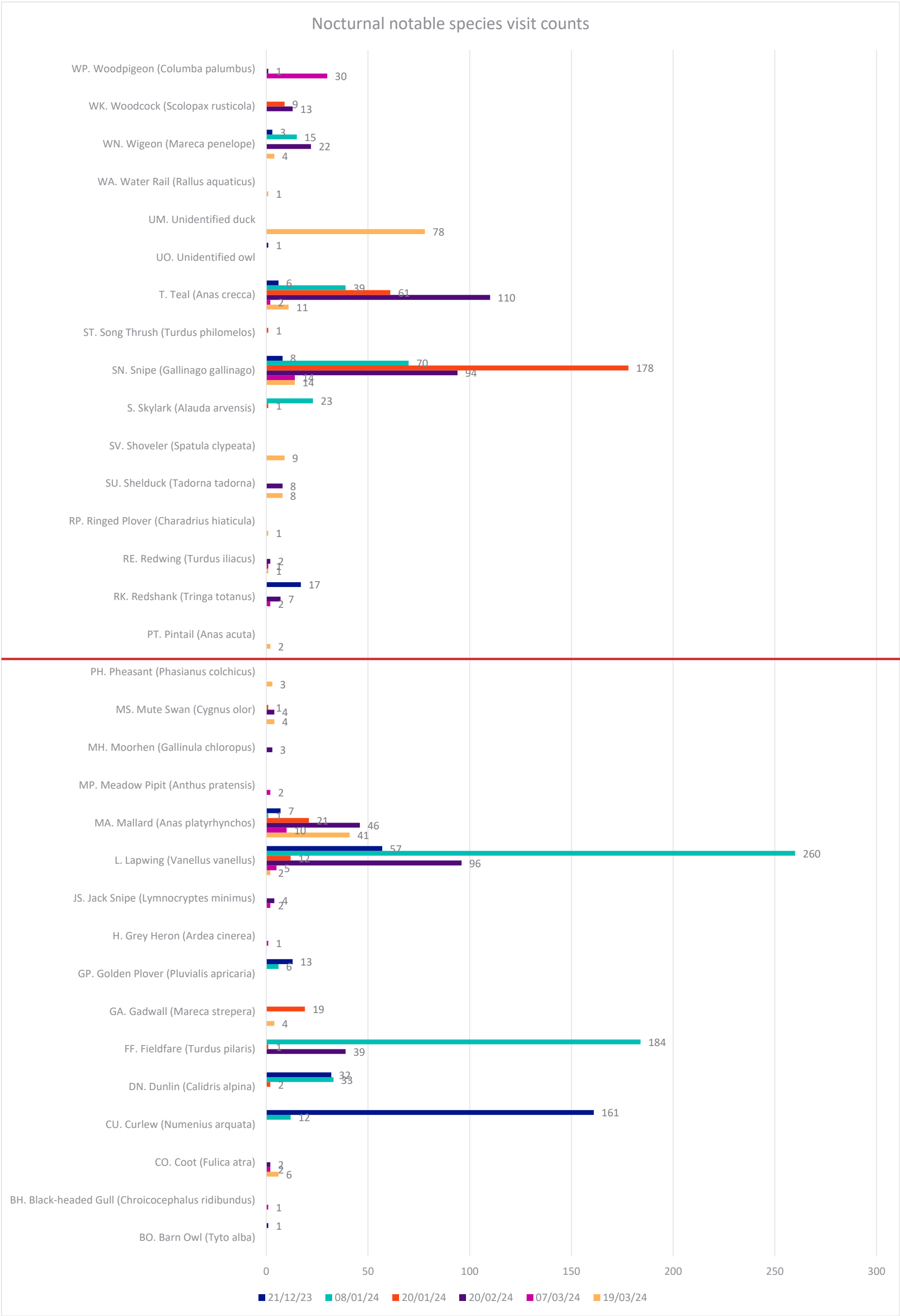
recorded within the flooded fields south of the River Stour canal during March. Some species were only recorded once, during early season (i.e. barn owl (*Tyto alba*)) or late season (evening) (i.e. water rail (*Rallus aquaticus*)) survey visits.

~~1.4.83~~1.4.81 While some of this is potentially attributable to the survey visits being unavoidably split between multiple dates (i.e. geographic coverage was not always consistent between visits), several key species were recorded in large numbers during almost the entire range of survey visits.

~~1.4.84~~1.4.82 Overall, areas south of the River Stour canal returned the largest numbers of birds later in the year, and there is a correlation between survey visits within this area and peak counts of certain species (i.e. peak count of teal in late February).

~~1.4.85~~1.4.83 While species peak counts and means are not directly comparable between the diurnal and nocturnal surveys due to differences in coverage and survey technique, in comparison to the daytime surveys some key observations were noted:

- The presence of groups of golden plover (though small) during the nocturnal surveys.
- Snipe and woodcock were much more numerous on nocturnal surveys, noting the absence of woodcock from diurnal surveys.
- Some variation in waterbird species, for instance teal appeared to make greater use of inland areas during nocturnal surveys.
- Recording of occasional owls, as expected.



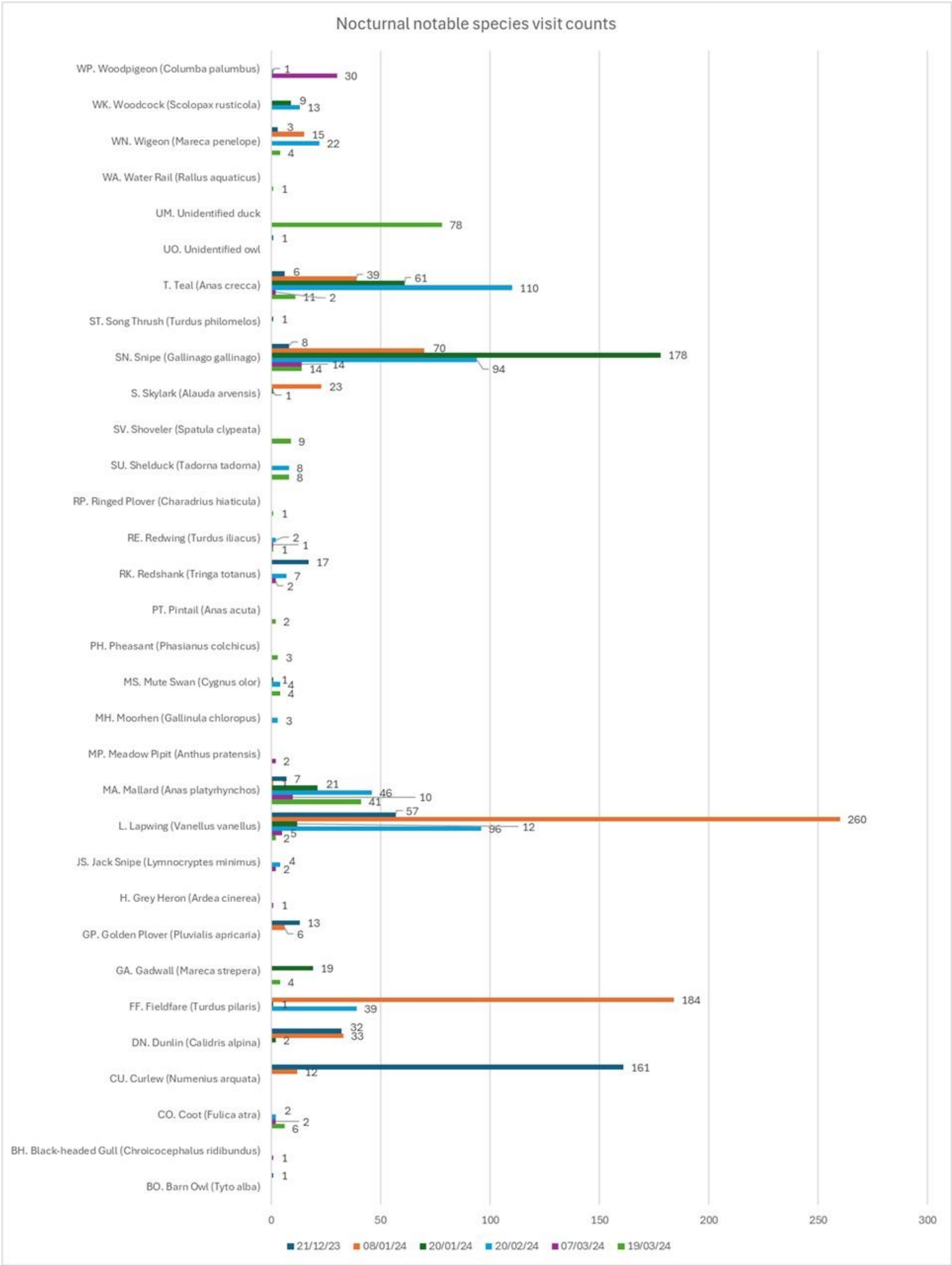


Plate 1.13 Temporal (visit) counts for notable species

Distribution

~~1.4.86~~1.4.84 The recording of target species within the inland section of the Survey Area was often correlated with use of short or ploughed, flooded cropland.

~~1.4.87~~1.4.85 Some key observations are as follows:

- Golden plover was recorded in the northwest fields of Parcel 244 only, west of the fishing lakes. Dunlin was also recorded only in these areas.
- South of the River Stour was generally the area used most by target species, similar to inland diurnal surveys, however Parcel 244 (east of railway and near proposed Minster Converter Station) also had large aggregations (curlew, dunlin and lapwing in particular).
- Parcel 232 north of the River Stour contained scattered target species, primarily snipe, woodcock and mallard, generally without large aggregations, although groups of snipe were recorded. The scrapes immediately north of the River Stour canal periodically held large groups of teal and snipe.
- Parcels 336 and 346 (in the northeast, east of Ebbsfleet Lane) generally had lower numbers of target species but occasional groups of lapwing were recorded here.
- Parcel 487 (open arable fields west of Weatherlees wastewater treatment works) generally had few or no recorded target species.

Incidental Survey Results

~~1.4.88~~1.4.86 While observations from the vantage point and OHL surveys broadly showed a diversity of species and abundance similar to those seen during other inland survey, a number of key observations are highlighted below. These have been incorporated into the combined results and evaluation as follows:

- Cormorant - many large flocks recorded flying overhead during vantage point surveys (single flight maximum of 450) with a count of over 5000 birds flying over also recorded during the 28 February 2024 OHL survey.
- Greylag goose (*Anser anser*) - flyovers of groups of between 50 and 96 birds, with some flights of individuals and small groups recorded during October through December.
- Little grebe (*Tachybaptus ruficollis*) - recorded as single birds on River Stour canal during vantage point surveys, with few records of this species during surveys.
- Pied wagtail (*Motacilla alba*) – flock of 70 birds recorded during OHL surveys on 22 February 2024.
- Short-eared owl (*Asio flammeus*) - a single bird recorded during vantage point survey on 27 October 2023.
- Water pipit – two birds recorded during OHL surveys on 22 February 2024
- White-fronted goose – a flyover of 43 birds recorded on 15 December 2023 during vantage point surveys, the only sighting of this species.

1.5 Evaluation

Conservation Status

- 1.5.1 A total of 101 bird species were recorded within the Survey Area. Of these, 68 are notable species, as summarised described within Section 2.3.
- 1.5.2 The overall combined wintering bird assemblage for the Survey Area (both intertidal and inland) included:
- 12 species that are included on Annex 1 of the EU Birds Directive:
White-fronted goose, little egret (*Egretta garzetta*), avocet, bar-tailed godwit, dunlin, golden plover, kingfisher (*Alcedo atthis*), Mediterranean gull (*Larus melanocephalus*), sandwich tern (*Thalasseus sandvicensis*), marsh harrier (*Circus aeruginosus*), peregrine falcon (*Falco peregrinus*) and short-eared owl;
 - 19 species that are listed as NERC Act Section 41 Species of Principal Importance:
Bullfinch (*Pyrrhula pyrrhula*), brent goose, black-tailed godwit, corn bunting (*Emberiza calandra*), curlew, dunnoek (*Prunella modularis*), herring gull, house sparrow, lapwing, linnet, redpoll (lesser) (*Acanthis cabaret*), reed bunting (*Emberiza schoeniclus*), skylark, starling, song thrush (*Turdus philomelos*), twite (*Linaria flavirostris*), white-fronted goose, yellowhammer (*Emberiza citrinella*) and yellow wagtail (*Motacilla flava*);
 - 19 species that are included on the BoCC Red list:
Black-tailed godwit, corn bunting, dunlin, fieldfare, herring gull, greenfinch (*Chloris chloris*), house sparrow, lapwing, linnet, redpoll (lesser), redwing, skylark, starling, ringed plover, twite, white-fronted goose, yellowhammer, yellow wagtail and woodcock; and
 - 42 species that are included on the BoCC Amber list.
- 1.5.3 Table 1.4 gives a very brief commentary on the numbers and distribution of each of these species. Where a species occurs in significant numbers, it is addressed in further detail in the subsequent sections of this evaluation section.
- 1.5.4 Note that where a species falls under multiple conservation status criteria, it is addressed in the first tier only.
- 1.5.5 Figures illustrating the distributions of these species within the Survey Area during the wintering bird survey are provided in **Annex 2.C.2**.

Table 1.4 Conservation status of recorded notable species and summary of observations

Species	Intertidal	Inland (including nocturnal)
SPA and Ramsar Qualifying and Notable Species		
Gadwall	Recorded during November only as group of 12 on coastal lagoon.	Nocturnally recorded as small group (16) in flooded Parcel 237 south of the River Stour canal and a group of

Species	Intertidal	Inland (including nocturnal)
		three to the north of the canal on 20/01/24.
Golden plover	Foraging flocks in the region of 200 to 400 recorded at low tide during November through to January, with a small group of eight also recorded during November high tide.	Nocturnally recorded as small groups of 13 and six on visits 21/12/23 and 08/01/24. Recorded on both occasions in same Parcel 244 location, in fields immediately north of the proposed Minster Converter Station, in association with other waders. Single flyover south of River Stour canal on 22/01/24.
Great crested grebe	Two to three birds recorded during November and March surveys.	Recorded exclusively on fishing pools within Parcel 244 as a small group of three to five birds. Recorded during almost every walkover survey.
Ringed plover	Groups of twelve and three recorded during November and December.	Single bird recorded nocturnally on 19/03/24 and on 22/01/24 as flyover south of River Stour canal.
Sanderling	Counts of 100-200 frequently recorded during November to February, both at high and low tide.	NR
Shoveler	Recorded primarily on coastal lagoon with numbers increasing into late winter with a peak count of 113 during February high tide and counts in the region of 40 to 80 birds during other December and January visits.	Recorded inland only during March nocturnal survey, as a group of nine south of the River Stour.
Turnstone	Small groups of two to 19 recorded relatively consistently at both high and low tide between December and March, usually on saltmarsh fringe.	NR
Wildlife & Countryside Act 1981 (as amended) Schedule 1		
Avocet	Two recorded in coastal lagoon during December and January visits.	Two avocet recorded south of River Stour canal during 14/03/24 OHL survey only.
Barn owl	NR	Recorded during nocturnal survey during December visit in Parcel 244 southwest (near woodland edge and near proposed converter station location).

Species	Intertidal	Inland (including nocturnal)
Cetti's warbler (<i>Cettia cetti</i>)	Individuals recorded in reedbeds and scrub adjacent to PRow from October to December.	Well distributed in association with field boundary drains and scrub across the Survey Area.
Fieldfare	NR	Large roving aggregations recorded across the Survey Area during November, otherwise as occasional small groups on diurnal surveys. Large flock of approximately 150 birds recorded in Parcel 244 during early January nocturnal visit.
Firecrest (<i>Regulus ignicapilla</i>)	Single bird recorded within trees of Pegwell Country Park near to PRow on 18/12/23.	NR
Kingfisher	Recorded using coastal lagoon on 10/11/23.	NR
Green sandpiper	NR	Recorded diurnally as a single in October and group of four in Parcel 244 during March.
Marsh harrier	NR	Singles recorded frequently, usually in proximity to River Stour canal. Pair seen displaying on 22/02/24 OHL survey.
Mediterranean gull	Four birds recorded at high tide 18/12/23, on mudflats and within gull roosts.	NR
Pintail (<i>Anas acuta</i>)	Groups of two and four birds recorded on saltmarsh fringe and mudflats during November and December.	Two recorded on March nocturnal survey 19/03/24, south of River Stour canal in waterbody of Parcel 231.
Peregrine (<i>Falco peregrinus</i>)	Flyovers recorded in October, February and March.	Recorded on 22/02/24 OHL survey perched on existing OHL.
Redwing	Recorded in shrubs adjacent to coastal path as two birds in October	Frequent small flocks recorded in boundary hedgerows and trees.
Sandwich tern	Single bird recorded at low tide on 10/11/23	NR
Twite	Two birds recorded at northern end of Pegwell Bay at low tide on 18/12/23.	NR

EC Birds Directive 2009 Annex 1

Species	Intertidal	Inland (including nocturnal)
Bar-tailed godwit	Recorded during November and December visits, as small groups generally foraging on exposed mudflats. Peak count of 70 birds during December high tide count from birds adjacent to River Stour mouth.	NR
Dunlin	Counts of 300-500 birds were recorded on visits during November and February while large counts in December and January approached or slightly exceeded 1000. October and March counts generally of small groups of birds less than 20.	Flocks of approximately 30 birds recorded during two nocturnal visits in same Parcel 244 location, in fields immediately north of the proposed convertor station. Groups also recorded in similar location diurnally from January to March, peak of 35 in February. 19 birds recorded in marshy areas of Parcel 228 south of Stour canal on 22/01/24.
Little egret	Consistently recorded using coastal lagoon and saltmarsh fringe with several counts of ten birds or over.	Recorded on occasion, only as singles and usually in proximity to River Stour canal.
White fronted goose	NR	Recorded as fly over of 43 birds during vantage point survey on 15/12/23 only.
NERC Act 2006 Section 41		
Bullfinch	NR	Recorded during only March
Brent goose	Frequently recorded on exposed mudflat with counts often in the region of 40 to 65 birds.	Recorded on single occasion as small group using Parcel 336 arable fields (east of A256) during November walkover.
Black-tailed godwit	Recorded at high tide only as a group of six to 39 birds, often roosting on coastal lagoon or nearby saltmarsh edge.	NR
Corn bunting	Flock of ten birds recorded on saltmarsh near coastal lagoon on 10/11/23. Flyover of 11 on 18/12/23 high tide.	Recording diurnally during October (four birds as individuals scattered around Parcel 244) and February (single bird south of OHL in Parcel 237) only.
Curlew	Peak count of 640 birds recorded during December high tide visit. Frequently recorded as several hundred birds roosting on saltmarsh edge and River Stour mouth or	Over 100 birds recorded in flooded areas of Parcel 244 and sometimes accompanied by gulls and other waders. Largest numbers in

Species	Intertidal	Inland (including nocturnal)
	foraging on mudflats and at shoreline.	November but small groups present on most visits of between two and 20. Count of 161 birds also recorded during December nocturnal survey in Parcel 244.
Dunnock	Individuals recorded on occasion from scrub adjacent to PRow.	Recorded on all diurnal visits, though as scattered individuals across the Survey Area usually in association with boundary habitats.
Herring gull	Largest counts of 430 and 300 birds recorded during December but recorded frequently as small groups or totals in the region of 150 birds. Often at shoreline or roosting with other gulls along the banks of the River Stour.	Recorded on all diurnal survey visits as scattered flocks across the Survey Area, with counts ranging from approximately 100 to 250.
House sparrow	Recorded once adjacent to PRow but known to be abundant in residential areas adjacent to Pegwell Bay.	Flock of 40 recorded in proximity to scrapes north of River Stour canal during November walkover.
Knot	Generally recorded as small groups in smaller numbers than other small waders (e.g. dunlin and sanderling)	NR
Lapwing	A peak count of 2500 during the February high tide is the highest of several counts in the region of 1000-2000 across December to February. Lapwing is either absent or present in much reduced numbers during other visits.	Counts in the region 150 to 250 between November and January attributable to birds utilising Parcel 244 primarily but also the fields south of the River Stour canal and also Parcel 336 arable fields (east of A256. Individuals and small groups were also recorded on other visits. Nocturnally recorded on all survey visits, usually as individuals or scattered small groups across the majority of the Survey Area. The largest recorded aggregations occurred in Parcel 244 on 08/01/24 and 20/01/24.
Lesser black-backed gull (<i>Larus fuscus</i>)	Recorded in small numbers of 30 or less during October to December, often mixed with other gull species.	Recorded only as small groups and individuals (totals eight or less) during February and March.
Linnet	Group of 11 recording during November high tide only.	Largest numbers in October and January attributable to roving winter flocks across the Survey Area, with

Species	Intertidal	Inland (including nocturnal)
		scattered individuals recorded in November and December.
Reed bunting (<i>Emberiza schoeniclus</i>)	Individuals recorded on most visits, within reed beds and saltmarsh.	Recorded frequently as individuals associated with drain and reed network across Survey Area with higher concentrations in areas adjacent to East Stour canal.
Skylark	Recorded as individuals throughout October to January, usually within saltmarsh adjacent to coastal lagoon.	Small and mid-sized flocks abundant through Survey Area, contributing to large peak counts, though some degree of double counting through movement may be inevitable. A movement of 90 birds recorded south of the River Stour canal during January emphasises large numbers present.
Song thrush	Single recorded in February, along tree lines fringing the north of Pegwell Bay.	Individuals scattered throughout the Survey Area, often associated with woodland edges (such as boundaries of Parcel 244 and 336) and hedgerow margins.
Starling	Groups of 40 and 45 recorded, likely foraging parties from nearby residential areas.	Largest aggregations recorded in October and March but small flocks present throughout the Survey Area during most diurnal visits.
Yellow wagtail	NR	Single late season bird recorded in Parcel 328 arable field during November.
BoCC Red		
Greenfinch	Single recorded from roadside scrub.	NR
Woodcock	NR	Scattered birds recorded in arable fields and boundaries during nocturnal surveys only, peak count of 13
BoCC Amber		
Black-headed gull	Count of over 800 birds in December, with counts on other visits of several hundred.	Consistent recording of large flocks south of River Stour and within Parcel 244, visit counts often in region of 200 to 400.
Caspian gull	Single bird recoded within River Stour mouth gull roost on 18/12/23	NR

Species	Intertidal	Inland (including nocturnal)
Common gull	Large counts of over 500 during December high tide and over 100 during February high tide contrast with the usual recording of a few or approximately 50 birds mixed with other more abundant gull species.	Flock of 70 birds recorded in November only with Parcel 244.
Great black-backed gull	Large roost present along banks of River Stour mouth, counts in the region of 500 or several hundred frequently recorded.	Group of 12 recorded with other more numerous mixed gull species in Parcel 244 in November. Individuals recorded in December and March.
Grey plover	Count of over 230 birds on December high tide contrasts to the usual recording of this species as small groups usually totalling 10 to 20 birds.	NR
Kestrel (<i>Falco tinnunculus</i>)	Recorded as single bird during November.	Recorded as between one and four birds across Survey Area, present on most visits.
Mallard	Recorded on every survey visit, though fluctuating in numbers from a peak of 44 during the October high tide to between 11 and 28 on other visits and as individuals only during February and March visits.	Individuals and scattered groups recorded in water filled drains and flooded arable across the Survey Area as well as the River Stour canal and adjacent scrapes Nocturnally recorded as small groups across entire Survey Area, with groups using flooded arable fields south of River Stour canal on later February and March surveys.
Meadow pipit	Count of 44 during January high tide contrasts to occasional recording of small groups.	Roving winter groups totalling between ten and 35 birds recorded on most survey visits, with a large count of late dispersing birds of over 100 birds mostly attributable to large flocks within Parcel 244.
Moorhen (<i>Gallinula chloropus</i>)	NR	One of two birds recorded on all diurnal survey visits, usually on Parcel 244 fishing lakes.
Mute swan (<i>Cygnus olor</i>)	NR	Group of 27 recorded south of the River Stour canal on 22/01/24. Otherwise recorded as individuals and small groups in fields north of south of the canal. February count comprised of small groups recorded both north and south of River Stour canal, January count

Species	Intertidal	Inland (including nocturnal)
		consisting primarily of a group of birds located to the south of Parcel 237.
Oystercatcher	Peak of 2078 during November high tide is part of a pattern of consistent recording of many counts of either over or approaching 1000 birds. Recorded on every survey visit.	NR
Redshank	Counts frequently in the region of 50 to 100 birds and present on every survey visit in at least small groups.	Small groups recorded diurnally between November and February, often foraging with curlew, dunlin and golden plover in Parcel 244. Also nocturnally recorded as small groups recorded in same Parcel 244 location as curlew, dunlin and golden plover, in fields immediately north of the proposed convertor station.
Rook	NR	Recorded on two visits, foraging on arable fields
Shelduck	Recorded on almost every survey visit, usually in small groups of 19 or less but in the region of 50 to 60 birds on two occasions.	Recorded diurnally as small groups during February and March only in flooded arable fields south of River Stour canal and Parcel 244. Recorded also nocturnally south of River Stour canal in February
Snipe	Recorded between November to January as between four and 11 birds, usually in saltmarsh near coastal lagoon.	Small groups primarily recorded in flooded fields in Parcel 244 and south of River Stour canal with largest visit count of 37 in January. Large nocturnal counts include aggregations of over fifty birds in Parcel 244 and Parcel 237 on 20/01/24. Large count of over 70 birds recorded from aggregations north and south of River Stour canal on 08/01/24.
Sparrowhawk (<i>Accipiter nisus</i>)	NR	Single bird recorded in November only.
Stock dove (<i>Columba oenas</i>)	Group of ten recorded on saltmarsh during November low tide	Counts in the region of 20 birds recorded on several survey visits and 40 to 50 birds recorded in January and February.
Teal	Counts of 195 on November high tide and 223 on December high tide	Nocturnally recorded as scattered groups both north and south of River

Species	Intertidal	Inland (including nocturnal)
	represent large roost aggregations with other waterbirds. Recorded on other occasions usually between ten and 40 birds on saltmarsh fringe or using coastal lagoon.	Stour canal within flooded arable fields and boundary ditches, some total counts of over a hundred birds. A registration of three birds was also recorded in Parcel 244. Diurnally, a group of 15 was recorded in Parcel 244 in March. Otherwise only recorded as a count of six or less, associated with River Stour canal, adjacent scrapes or flooded fields.
Wigeon	Recorded on every visit. Peak count of 964 during November low tide (and count of 810 during November high) with multiple counts in the region of 100 – 300 birds. Usually on shoreline, mudflats or on River Stour mouth.	Recorded nocturnally but not diurnally on most survey visits as 20 birds or less using flooded fields south of the River Stour canal.
Water pipit	NR	Single recorded diurnally during March in Parcel 244.
Willow warbler (<i>Phylloscopus trochilus</i>)	NR	Single later summering/migrant bird recorded during October.
Woodpigeon	NR – but known to be present in residential areas and cliffside trees just beyond intertidal areas.	Between 30 and 60 birds recorded in small groups across Site with large count of over 300 birds in October mainly attributable to flock of 250 in woodland fringe of Parcel 244.
Wren (<i>Troglodytes troglodytes</i>)	Recorded as an individual during December but known to be abundant in surrounding areas.	Recorded on every diurnal visit but only as scattered individuals.

Species Abundance/Designated Sites Context

Overall comparison between survey peak counts and designated site data

- 1.5.6 The peak counts for species where large numbers have been recorded in comparison to designated site data have been reviewed in further detail within Table 1.5 Survey peak counts for species recorded in large numbers compared to designated site data/national thresholds.
- 1.5.7 The overall survey peak counts are shown as a proportion of the designated site's 5-year mean peak of the designated sites. Note that in this instance, only the Pegwell Bay WeBS sector has been included (although the Thanet Coast WeBS count is part of the same SPA) due to the difference in habitat types and species assemblage apparent within the WeBS data.

1.5.8 Peak counts are also assessed as a proportion of the 1% threshold criteria (Austin, et al., 2023) for wintering waterbirds (as a wetland in Britain is considered of national importance if it regularly supports 1% of the total numbers in Britain). Counts where the number of recorded birds exceeded local WeBS count 5-year mean peaks or approach or exceed 1% national thresholds are highlighted in bold.

Table 1.5 Survey peak counts for species recorded in large numbers compared to designated site data/national thresholds

Species	Recorded Peak Count (intertidal unless otherwise stated)	Thanet Coast SPA/Ramsar citation 5 year mean peak	Latest WeBS Lowtide Pegwell Bay 18/19-23 five year mean peak	Stodmarsh SPA/Ramsar citation 5 year mean peak	Great Britain 1% Threshold	Proportion of recent Pegwell Bay WeBS five year 18/19-23 peak mean	Over or approaches 1% of GB Threshold ?
Bar-tailed godwit	71	N/A	161	N/A	505	<50%	No
Black tailed godwit	39	N/A	32	N/A	390	>100%	No
Cormorant	440	N/A	823	N/A	620	>75%	0.71%
Curlew	640	N/A	423	N/A	1,200	>100%	0.53%
Dunlin	1714*	N/A	724	N/A	3,400	>100%	0.50%
Golden plover	421 13 (inland)	411 SPA	391	N/A	4,000	>100%	No
Grey plover	234	N/A	197	N/A	335	>100%	0.70%
Lapwing	2500	N/A	1754	1,128	6,200	>100%	No
Marsh Harrier	2 (inland)	N/A	0	N/A	N/A	N/A	N/A
Oystercatcher	2078	N/A	1251	N/A	2,900	>100%	0.72%
Ruddy turnstone	19	940 SPA 1007 Ramsar	5	N/A	400	>100%	No
Sanderling	194 257**	N/A	198	N/A	200	>100%	~1% 1.29%
Shelduck	60	N/A	145	N/A	470	<50%	No
Shoveler	113	N/A	92	191	310	>100%	No

Species	Recorded Peak Count (intertidal unless otherwise stated)	Thanet Coast SPA/Ramsar citation 5 year mean peak	Latest WeBS Lowtide Pegwell Bay 18/19-23 five year mean peak	Stodmarsh SPA/Ramsar citation 5 year mean peak	Great Britain 1% Threshold	Proportion of recent Pegwell Bay WeBS five year 18/19-23 peak mean	Over or approaches 1% of GB Threshold ?
Snipe	178 (nocturnal)	N/A	52	329	10,000	>100%***	No
Teal	223	N/A	225	N/A	4,300	~100%	No
Water rail	2	N/A	2	0	39	~100%	No
Wigeon	964	N/A	746	N/A	4,500	>100%	No

*all unidentified small waders on 18/12/23 high tide assigned as dunlin on precautionary basis.

** 25% of unidentified small waders on 18/12/23 high tide assigned as sanderling on precautionary basis.

***note Ash Levels count sector count of 258 is more comparable as peak count occurred inland adjacent to Ash Levels.

1.5.9 Of those bird species listed as qualifying (or noteworthy) species of the Thanet Coast and Stodmarsh SPAs and Ramsar, the recorded counts are shown as a proportion of the designated site 5-year mean peak below.

Table 1.6 SPA/Ramsar qualifying or noteworthy species survey peak counts as proportion of available designated site data.

Species	Relevant Designated Site	Record ed Peak Count (intertidal unless otherwise stated)	Latest WeBS Lowtide Pegwell Bay 18/19-23 five year mean peak	Latest WeBS Lowtide Thanet Coast 18/19-23 five year mean peak	Latest WeBS core count Stodmarsh five year mean peak	Proporti on to WeBS Pegwell Bay five year Mean Peak	Proporti on to Thanet Coast five year Mean Peak	Proporti on to Stodmarsh five year SPA Mean Peak
Gadwall	Stodmarsh	12	23	0	102	N/A	N/A	11.8%
Golden plover	Thanet Coast	421	391	25	1	>100%	>1600%	N/A
Great crested grebe	Thanet Coast	5	7	30	46	>75%	<16.6%	N/A
Lapwing	Stodmarsh	2500	1754	9	378	N/A	N/A	>600%
Mallard	Stodmarsh	46	76	46	290	N/A	N/A	15.8%

Species	Relevant Designated Site	Record ed Peak Count (intertidal unless otherwise stated)	Latest WeBS Lowtide Pegwell Bay 18/19-23 five year mean peak	Latest WeBS Lowtide Thanet Coast 18/19-23 five year mean peak	Latest WeBS core count Stodmarsh five year mean peak	Proporti on to WeBS Pegwell Bay five year Mean Peak	Proporti on to Thanet Coast five year Mean Peak	Proporti on to Stodmarsh five year SPA Mean Peak
Ringed plover	Thanet Coast	12	36	136	2	3.2%	0.85%	N/A
Ruddy turnstone	Thanet Coast	19	5	241	N/A	>100%	6.47%	N/A
Sanderling	Thanet Coast	194 257**	198	432	N/A	>100%	>100%	N/A
Shoveler	Stodmarsh	113	92	3	337	N/A	N/A	33.53%
Snipe	Stodmarsh	178	52	23	33	N/A	N/A	>500%
Water rail	Stodmarsh	2	2	N/A	7	N/A	N/A	28.57%
Wigeon	Stodmarsh	964	746	19	493	N/A	N/A	>195%

- 1.5.10 Caution is required with interpretation of large proportion counts, especially in relation to the Stodmarsh SPA/Ramsar which is located at significant distance. It is assessed that species occurring within the Survey Area are likely attributable to populations occurring with the local area, based on available guidance on species dispersal distance (Natural England, 2019) and WeBS data for Pegwell Bay and Ash Levels (see **Annex 2.C.1**).
- 1.5.11 For instance, some of the high proportions in relation to the Stodmarsh five-year mean peak are likely due to the survey peaks incorporating bird populations separate to those utilising Stodmarsh or sedentary/local to the Pegwell Bay area.
- 1.5.12 Turnstone is noted to primarily use other areas of the Thanet Coast and not Pegwell Bay (in large numbers), as reflected in the WeBS data. Conversely, intertidal survey data and WeBS data show golden plover primarily appearing to use Pegwell Bay but not the Thanet Coast WeBS sectors (i.e. north Kent coast).
- 1.5.13 Snipe counts are not directly comparable as nocturnal survey is much more efficient for detection of this cryptic species. While recorded snipe numbers are high, they are more directable comparable to the Ash Levels WeBS sector, as such counts occurred inland. Ash Levels has a comparable five-year mean peak of 258 (see **Annex 2.C.2**).
- 1.5.14 Further discussion is provided below in respect of the intertidal and inland areas given the separation of the two areas from each other in terms of location, geography and designated site context.

Intertidal

- 1.5.15 The majority of waterbird species recorded had recorded peak counts comparable (i.e. 50% of or even exceeding) with the latest five mean peaks for the relevant WeBS sector

(Pegwell Bay) of the Thanet Coast SPA/Ramsar, similar to previous Winter survey results (**Application Document 6.3.3.2.B Wintering Bird Survey Report 2023-2024**). This is partially due to the intertidal survey area comprising the majority of the Pegwell Bay WeBS sector.

- 1.5.16 As a result, most species recorded in larger numbers contribute to the overall wintering waterbird assemblage of the Thanet Coast SPA.
- 1.5.17 As expected, due to its designated status as an SPA and Ramsar, counts of wintering birds within the intertidal count area approached 1% of the national wintering population estimates (Woodward et al., 2020) for a few key species as follows:
- Dunlin, cormorant, oystercatcher, grey plover and sanderling were recorded in large numbers, with peak counts equivalent to 0.5% - 0.7% of the Great Britain population estimates.
 - Sanderling was the only species recorded to be equivalent to or to exceed the Great Britain 1% threshold.
 - Golden plover and sanderling were recorded in large numbers (within the Survey Area), comprising a large proportion of the most recent SPA/Ramsar WeBS 5 year mean peaks.
 - Lapwing were recorded in large numbers relative to the Stodmarsh citation, however such counts are more appropriately viewed in the context of Pegwell Bay and other local WeBS count sectors. Large counts frequently occur within these data sets.
- 1.5.18 Ringed plover, turnstone and great crested grebe were recorded in numbers much smaller than the original SPA/Ramsar counts but comparable to the latest Pegwell Bay WeBS data. In the case of ringed plover and turnstone, this likely reflects that these species occur elsewhere within the SPA.
- 1.5.19 The data does, however, reflect, in conjunction with review of the Survey Area, habitats and review of local data sources (Kent Ornithological Society, 2023) that the following species from the designated sites are using the Survey Area in significant numbers:
- Golden plover and sanderling – peak counts represent a large proportion of the latest WeBS data and Thanet Coast SPA/Ramsar citation counts.
 - Dunlin, cormorant, oystercatcher, grey plover and sanderling in proportion to Great Britain population estimates, as above.
- 1.5.20 The high proportions of the Thanet Coast and Sandwich SPA/Ramsar counts reflect that the Survey Area covers a large expanse of tidal mudflat and a large expanse of the overall Pegwell Bay WeBS sector. The Thanet Coast SPA also has some context in that Pegwell Bay provides the largest area of extensive mudflat within the SPA/Ramsar, with the remainder of the designated site being comprised of a majority of sandy or shingle beach despite its size. This is also reflected in the high proportions of mudflat-associated species but a relative absence of rocky shore species (e.g. turnstone).
- 1.5.21 The remaining waterbird and other notable bird assemblage was also noted to comprise large peak counts of many species, again consistent with the Survey Area being within the Thanet Coast SPA/Ramsar and confirming the importance of Pegwell Bay for these species.

Inland

- 1.5.22 The small occasional groups of golden plover recorded inland represented a small proportion (but over 1%) of both the latest Thanet Coast and Sandwich Bay SPA citation data and the latest WeBS counts, representing an occasional usage of the inland Survey Area by small groups of golden plover. Note that golden plover were recorded predominately during nocturnal surveys within Parcel 244.
- 1.5.23 Great crested grebe (a noteworthy but not qualifying species of Thanet Coast and Sandwich Bay Ramsar) were recorded regularly as individuals or small groups on the fishing lakes within Parcel 244. A single ringed plover was also recorded during a nocturnal survey.
- 1.5.24 Some large counts (including counts approaching 200) of lapwing and curlew were recorded. Smaller groups of other waterbirds were recorded, including great crested grebe, dunlin, snipe, shelduck, mallard and teal. Individual or small groups of green sandpiper, gadwall and water rail were occasionally recorded.
- 1.5.25 However, for the inland areas no counts of any wintering bird species recorded approached 1% of the national wintering population estimates, though noting the presence of golden plover and great crested grebe in respect of the Thanet Coast SPA/Ramsar.
- 1.5.26 At a County level, counts for the remaining species recorded inland were again compared with those detailed within the Birds of Kent Report 2020 (Kent Ornithological Society, 2024). Most species were recorded in 'low' numbers in comparison with county records, aside from the species discussed below:
- Curlew – The inland counts of over 100 birds are notable, but the county has many sites with regular counts of over 1000 birds for comparison.
 - Corn bunting – Scattered individuals and small flocks were occasionally recorded for this rarer species, although without major winter aggregations.
 - Green sandpiper – The count of four represents a large proportion of the national wintering population estimate.
 - Marsh harrier – While recorded as a lower peak count compared to observations during the previous (2022/2023) winter season's inland survey and vantage point surveys, this species was still recorded regularly.
 - Meadow pipit – The March peak count of 169 birds represents a large wintering aggregation of this species, although much larger counts have been returned elsewhere from within the county (KOS, 2023). The numbers of this species recorded on other visits were much lower
 - Lapwing – Winter peak counts of 2,000 – 8,000 are reported within the Birds of Kent Report 2020 for various sites, including Pegwell Bay, indicating this species is widely distributed within Kent.
 - Skylark – The peak count recorded is comparable to winter movements noted within the Kent Bird Report of over 100 birds from multiple sites and comparable to some of the biggest recorded county counts.
 - Snipe – Large counts of over 100 recorded during nocturnal surveys and also counts of over 30 during diurnal surveys, represent large counts of a typically under-recorded species.

- Water pipit – the count represents a large proportion of this rarer species' national wintering population estimate.

Species Diversity

Intertidal

- 1.5.27 Similar to the results of previous surveys during the 2022/2023 Winter season (**Application Document 6.3.3.2.B Wintering Bird Survey Report 2023-2024**), the diverse assemblage of species recorded during the intertidal counts reflects the designated status of Pegwell Bay and was primarily comprised of a range of wildfowl, waders and gulls including recording of occasional vagrant species.

Inland

- 1.5.28 The inland areas recorded a reasonably diverse range of species. While species associated with developed hedgerow and field boundary features were limited (e.g. linnet and yellowhammer), the drainage ditch and watercourse network was utilised by a range of wetland-associated passerines and waterbirds. It is noted that several species from the adjacent Ramsar/SPA do form part of the inland assemblage.
- 1.5.29 Flooding of arable fields to the south of the Stour canal during the latter part of the winter season appeared to be correlated with a greater diversity of species utilising this area. Flooded portions of arable fields in general appeared to be correlated with a greater use by waterbirds such as curlew, lapwing, dunlin, golden plover, shelduck and mallard.
- 1.5.30 The central areas of the arable fields, when dry, were used by a generally less diverse range of species, though noting that skylark, meadow pipit, woodcock and snipe were often present.
- 1.5.31 The criteria for inclusion of the inland site as an LWS could possibly be met by the use of the Stour canal, scrapes to its immediate north and land south of the Stour canal by a relatively extensive range of waterbirds and passerines. Noting that this diversity is unlikely to be representative of years without extensive flooding, extreme flooding and weather conditions are likely to become more frequent in future years due to climate change.

Habitat/Distribution

Intertidal

- 1.5.32 Similar to observations during previous intertidal surveys (**Application Document 6.3.3.2.B Wintering Bird Survey Report 2023-2024**), the River Stour, coastal lagoon and mudflat closest to the shoreline were the most heavily utilised areas, although waterbirds used all areas of the bay.
- 1.5.33 While broadly all areas of the foreshore and intertidal area were observed to be used by major aggregations of waterbirds, a number of key observations on distribution and habitat use were made as follows:
- The coastal lagoon tended to be used by aggregations of ducks, egrets and small numbers of gull, with passerines using the adjacent saltmarsh and coastal scrub.

- The River Stour mouth tended to be used as a roost site by larger species at its furthest extent into the estuary (gulls, oystercatcher and cormorants), although ducks (wigeon and shelduck) were often also present with larger waders (curlew, godwits, oystercatcher).
- Smaller but still sizeable roosts of curlew, oystercatcher and ducks were also present on the saltmarsh fringe closer to shore at high tide.
- The large aggregations of smaller waders (primarily dunlin and sanderling) tended to forage near the shoreline at low tide on recently exposed mud but were occasionally recorded roosting near to the River Stour. Some species, such as brent goose and golden plover, used exposed mud areas closer to the saltmarsh fringe/land but could also be distributed near the shoreline.
- The open water areas of Pegwell Bay were occasionally utilised by small groups of great crested grebe, gulls and wigeon, though overall numbers of birds recorded on open water were much lower than those recorded on shore.

1.5.34 The high tide on 15 January 2024 was noted to cover most of the saltmarsh on the edge of Pegwell Bay, causing birds to aggregate more densely along the mouth of the River Stour, which appears to correlate with one of the lowest mid-winter counts of total birds. The tide height on this date, while high (5.0 m) is not exceptional for Pegwell Bay and may represent the later part of the survey directly overlapping with the peak of a spring high tide.

1.5.35 The movement of birds in response to such a tide occurrence may represent the preference of the River Stour mouth as an alternative roost location to the flooded salt marsh. A lack of smaller waders (e.g. dunlin, sanderling, knot) or the large aggregations recorded on other visits, may indicate these species have an alternative roost location beyond Pegwell Bay.

Inland

1.5.36 Overall, the inland areas held a reasonable assemblage of notable species, with the River Stour canal, flooded fields and ditch networks being the most valuable habitats for birds, and hedgerows and arable fields varying according to their quality or crop rotations.

1.5.37 Three notable areas were recorded as being used by significant numbers or by species of high conservation importance as follows:

- Fields northeast of the River Stour (Parcel 232) and either side of the adjacent railway (southeast corner of Parcel 232 and southwest area of Parcel 244) - used periodically by aggregations of waders including golden plover, curlew, dunlin and lapwing. Aggregations of skylark were also regularly recorded within these fields. Woodcock was also only recorded at night, utilising standing water on occasion within arable fields.
- Fields within Parcel 244 were used by groups of waterbirds when flooded, including curlew, dunlin, snipe, lapwing and golden plover.
- Fields to the south of the River Stour canal and wet scrapes to its immediate north were used by a range of waterbirds (especially flooded areas), raptors and occasional passerine aggregations (notably skylark). This is in notable contrast to the results of surveys during the 2022/2023 winter season (**Application Document**

6.3.3.2.B Wintering Bird Survey Report 2023-2024), and is attributed to the presence of extensive standing water and unusually heavy rainfall.

- 1.5.38 Brent goose was occasionally recorded inland using the northeast arable fields of Parcel 336; however aside from gulls and lapwing, waterbirds were not recorded in this area aside from small numbers on inland birds using adjacent ditches.
- 1.5.39 Large nocturnal counts of curlew and teal show high levels of inland nocturnal use of the Survey Area by species more often recorded during the intertidal surveys. Counts of redshank, dunlin and golden plover, while not large, do indicate inland nocturnal foraging activity of these species.
- 1.5.40 The remaining areas appear to support a good assemblage of species but with the majority of species associated with the boundary field margin habitats.

Temporal (Monthly and Diurnal/Nocturnal Variations)

Intertidal

- 1.5.41 The change in total target bird numbers by month has been previously shown within the Results section and generally correlates to expected seasonal, migration and weather patterns for waterbirds – i.e. the largest aggregations occurring during the colder, mid-winter months of December to February.
- 1.5.42 Some relevant observations for key species are provided in brief below:
- Golden plover – recorded in all months aside from October and March. Largest counts in December.
 - Cormorant – large roost count in February but generally only present in small groups in contrast to previous years of survey.
 - Grey plover – present in small groups on most visits, with a pronounced peak in December.
 - Curlew, dunlin, lapwing, shelduck, shoveler, teal, black-headed gull and herring gull – present on most visits, with a broad build-up of numbers to a mid-winter peak and present in large numbers across multiple visits.
 - Oystercatcher – present in large numbers during most months and generally in consistently large numbers.
 - Wigeon – largest numbers recorded early in the survey period (October and November), though present on all survey visits.
 - Bar-tailed godwit and black-tailed godwit – recorded from October to December only.
 - Great black-backed gull – recorded in large numbers from October to December and then reduced.
 - Turnstone recorded in the latter half of the survey period in December, February and March as small groups.
 - Many birds recorded on only single or a couple of occasions including great crested grebe, gadwall, pintail, ringed plover, snipe, water rail, sandwich tern, peregrine falcon, Mediterranean gull and Caspian gull.

Inland

- 1.5.43 Notably, species diversity and abundance inland appeared influenced by the high rainfall and levels of standing water. As standing water appeared to accumulate later in the season (December onwards), the increase in waterbirds for the inland areas is not so straightforward in correlation.
- 1.5.44 Shelduck and dunlin presence occurred later in the winter season (January to March) while peak counts of curlew and brent goose occurred during the early winter season (November). Redshank peak counts occurred mid-season (December and January). It is noted that the large peak counts of snipe and teal occurred in January and February. The general mild conditions (lack of prolonged frozen or low-temperature periods) may have also had an effect, as cold temperatures and freezing conditions can have a strong effect on water bird numbers and activity, often concentrating birds on remaining unfrozen or available foraging areas.
- 1.5.45 Small inland aggregations of golden plover were only recorded during December and January nocturnal surveys (aside from a flyover recorded south of River Stour canal).
- 1.5.46 Recording of passerines was generally more consistent inland than within tidal areas and appeared to follow general migratory and seasonal trends expected for these species.
- 1.5.47 The peak counts of some farmland-associated species were spread throughout the winter season - such as linnet and corn bunting in October, skylark and lapwing in November, meadow pipit in March. Overall, a mid-winter peak was not necessarily observed and peaks for some species could be attributable to post-breeding or late winter dispersing flocks.
- 1.5.48 Nocturnal surveys recorded greater numbers of snipe and woodcock than during diurnal surveys and there was only one record of barn owl during the surveys. Teal were noted to be more abundant south of the River Stour canal at night, and along with other species this may reflect some changes in use of areas by certain species between day and night.

Functionally Linked Land – Designated Site Context

- 1.5.49 Areas that are functionally linked to European designated sites are considered within ecological impact assessments when they may be affected by plans and/or projects. For the purposes of this assessment, land is assessed as being potentially 'linked' to a European site if it serves an important ecological function in maintaining or restoring the population of qualifying species at favourable conservation status (Natural England, 2016).
- 1.5.50 The intertidal portions of the Survey Area form part of the Thanet Coast and Sandwich Bay SPA/Ramsar and continue to support the species for which the SPA and Ramsar are designated.
- 1.5.51 Since several fields within the centre of the inland Survey Area (Parcel 244 in particular) have been found to support foraging golden plover as a small proportion (but over 1%) of the original SPA citation, it is likely that this area constitutes functionally linked land associated principally with the Thanet Coast and Sandwich Bay SPA, where golden plover is a named qualifying feature.
- 1.5.52 The presence of waterbirds inland (primarily associated with River Stour and adjacent habitats) is assessed as likely to be associated with local wintering bird populations

associated with Pegwell Bay (and local habitats) rather than with Stodmarsh SPA. This is based on likely dispersal distance guidance for these species (Natural England, 2019) field observations, WeBS data and the distance of the Stodmarsh SPA/Ramsar compared to other available habitats in the local landscape/district able to support large numbers of these species.

- 1.5.53 Great crested grebe has been recorded as using the intertidal area and fishing lakes within Parcel 244, while sanderling has been recorded in large numbers within the intertidal area. Both species are however 'noteworthy' fauna on the Thanet Coast Ramsar citation and are not qualifying species.

Overall Importance of Wintering Bird Populations

Intertidal

- 1.5.54 As expected (and consistent with previous year's survey and WeBS data), the shoreline and intertidal areas supported a diverse overall wintering waterbird assemblage with large counts recorded for a number of species, reflective of its designation as a SPA/Ramsar.
- 1.5.55 Populations and their associated relative importance vary in accordance with the individual species, but the majority of species recorded occur in numbers of at least county importance and several species approach national 1% thresholds (in particular grey plover, oystercatcher and cormorant).
- 1.5.56 The assemblage as a whole is provisionally assessed as being of international importance due to association with the SPA and continued use of Pegwell Bay by a large diversity of species, many approaching counts of 1% of national population estimates.
- 1.5.57 Of particular importance is golden plover (designated site qualifying species recorded in peak counts comparable to SPA citation counts) and sanderling recorded in numbers comparable to the 1% national threshold counts.
- 1.5.58 Individuals of rarer species such as Caspian gull and twite represent a large proportion of the UK wintering population for these species but were recorded on single occasions, potentially as roaming winter or passage birds. Such species have been assessed provisionally as county importance due to their rarity but taking into account their temporary use of the Survey Area.

Inland

- 1.5.59 The peak counts of a small number of species are assessed as particularly notable and are as follows:
- Golden plover - assessed as potentially being of international importance, based on potential linkage to the Stodmarsh SPA/Ramsar, though noting use of the Survey Area was recorded infrequently (two nocturnal foraging parties and one flyover) by individuals and small groups.
 - Snipe – large nocturnal counts are partially reflective of the nocturnal survey technique being more appropriate for detection of this cryptic species, but also likely reflective of the waterlogged field conditions encountered. Inland diurnal counts were, however, also relatively high. Nocturnal counts are comparable to some of the higher county snipe counts within the Kent Bird Report, and as a result the recorded

numbers for this species, taken from the 2023/2024 data, have been provisionally assessed as being of county importance.

- Lapwing – flocks and counts of birds between 100 and 250 were recorded during multiple diurnal and nocturnal surveys. However, large aggregations of thousands of lapwing are present elsewhere in the county and this is a well distributed species (Kent Ornithological Society, 2024) Therefore, the recorded numbers of lapwing are provisionally assessed as being of local (district) importance.
- Green sandpiper – the peak count of four represents over 1% of the 290 GB wintering population (Woodward et al, 2020) and given repeat recording of this species, the recorded numbers are provisionally assessed as being of at least county importance.
- Marsh harrier – repeat recording but usually of single birds. Assessed as local (district) importance due to forming a large proportion of the county population estimate.
- Water pipit – a peak count of one represents approximately 0.5% of the 205 GB wintering population (Woodward et al 2020) and is assessed provisionally as being of at least county importance.
- Skylark – consistent counts of over 100 birds during multiple inland surveys and observations of foraging aggregations, including an aggregation of 90 birds, show that the arable fields across the Survey Area are being heavily utilised by this species. Even treating peak counts with a degree of caution to account for potential movement and double counting of winter flocks, the numbers of this species recorded has been provisionally assessed as being of county importance.

1.5.60 The remaining species assemblage recorded within the inland area, based on numbers and conservation status, is broadly reflective of the habitats present and has been assessed as being of local importance, but noting that the River Stour canal and surrounds (especially flooded fields and marshy areas south of the canal) support the greatest diversity of habitats and species within this area.

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Annex 2.C.1 Desk Study Summaries

Table A.1 Desk study summary

Species	Latest WeBS Corecount Thanet Coast 18/19-22/23 five year mean peak	Latest WeBS Corecount Pegwell Bay 18/19-22/23 five year mean peak	Lastest WeBS Corecount Ash Level 18/19-22/23 five year peak mean	Latest WeBS Corecount Stodmarsh 18/19- 22/23 five year mean peak	Latest Worth Marshes/Lyddden Valley Corecount 18/19-22/23 five year mean peak
Bar-tailed godwit	1	161	-	-	-
Black tailed godwit	12	32	-	8	3
Bittern	-	-	-	3	-
Brent goose	875	86	-	-	-
Cormorant	269	823	7	1425	8
Curlew	69	423	6	-	41
Dunlin	79	724	1	-	-
Gadwall	-	23	9	102	91
Golden plover	25	391	2	1	160
Great crested grebe	30	7	-	46	-
Greenshank	-	13	-	1	-

Species	Latest WeBS Corecount Thanet Coast 18/19-22/23 five year mean peak	Latest WeBS Corecount Pegwell Bay 18/19-22/23 five year mean peak	Lastest WeBS Corecount Ash Level 18/19-22/23 five year peak mean	Latest WeBS Corecount Stodmarsh 18/19- 22/23 five year mean peak	Latest Worth Marshes/Lyddon Valley Corecount 18/19-22/23 five year mean peak
Grey plover	40	197	-	1	-
Hen harrier	-	-	-	-	-
Knot	-	94	-	-	-
Lapwing	9	1754	177	378	976
Little tern	-	1	-	-	-
Mallard	46	76	86	290	63
Marsh harrier	-	-	-	-	-
Mute swan	6	2	32	164	39
Oystercatcher	210	1252	-	-	-
Pochard	-	5	-	99	-
Redshank	80	191	1	1	2
Red-throated diver	35	3	-	-	-
Ringed plover	136	36	-	2	-
Sanderling	432	198	-	-	-
Shelduck	7	145	12	2	13
Shoveler	3	92	8	337	108
Snipe	23	52	258	33	53

Species	Latest WeBS Corecount Thanet Coast 18/19-22/23 five year mean peak	Latest WeBS Corecount Pegwell Bay 18/19-22/23 five year mean peak	Lastest WeBS Corecount Ash Level 18/19-22/23 five year peak mean	Latest WeBS Corecount Stodmarsh 18/19- 22/23 five year mean peak	Latest Worth Marshes/Lyddden Valley Corecount 18/19-22/23 five year mean peak
Teal	3	225	432	1800	449
Tufted duck		27	-	82	32
Turnstone	241	5	-	-	-
Water rail	-	2	2	7	4
Wigeon	19	746	240	439	1028

Annex 2.C.2 Detailed Survey Data

Table A.2 Intertidal detailed survey data (high and low tide visits)

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
AV. Avocet (<i>Recurvirostra avosetta</i>)	Birds Dir: An1 WCA Schedule 1 species Amber: BL, WL	-	-	2	-	2	2	2	1.00	-	-	-	-	2	2	2	0.67
BA. Bar-tailed godwit (<i>Limosa lapponica</i>)	Birds Dir: An1 Amber WL, WI	-	3	71	-	-	-	71	12.33	-	10	-	-	-	-	10	1.67
BG Brent goose (<i>Branta bernicla</i>)	Amber: WL, WI	31		2	55	40	17	55	24.17	65	3	51	55		11	65	30.83
BH. Black-headed Gull (<i>Chroicocephalus</i>)	Amber: WDMp1, WI	28	171	385	29	634	27	634	212.33	15	4	835	384	590	205	835	338.83

Species	Conserv ation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n
		18/10 /23	10/11 /23	18/12 /23	15/01 /24	01/02 /24	13/03 /24	Peak		18/10 /23	10/11 /23	18/12 /23	15/01 /24	01/02 /24	13/03 /24	Peak	
<i>halus ridibundus)</i>																	
BW Black- tailed Godwit (<i>Limosa limosa</i>)	WCA Schedule 1 species Section4 1 species Red: HD; BDMr1, BR, WL	39	6	25	-	-	-	39	11.67	-	-	-	-	-	-	0	0.00
C. Carrion Crow (<i>Corvus corone</i>)	Green	-	-	-	-	-	-	0	0.00	-	-	-	-	-	44	44	7.33
CA. Cormorant (<i>Phalacroco rax carbo</i>)	Green	10	12	-	-	440	5	440	77.83	6	6	39	12	5	5	39	12.17
CB. Corn Bunting (<i>Emberiza calandra</i>)	Section4 1 species Red: HD, BDp2, BDr2; BDMp1, BDMr1, WDMr	-	10	11	-	-	-	11	3.50	-	-	-	-	-	-	0	0.00

Species	Conservation Status	High Tide								Low Tide							
		Visit 1 18/10/23	Visit 2 10/11/23	Visit 3 18/12/23	Visit 4 15/01/24	Visit 5 01/02/24	Visit 6 13/03/24	Over all Peak	Mean	Visit 1 18/10/23	Visit 2 10/11/23	Visit 3 18/12/23	Visit 4 15/01/24	Visit 5 01/02/24	Visit 6 13/03/24	Over all Peak	Mean
CC. Chiffchaff (<i>Phylloscopus collybita</i>)	Green	-	-	-	-	-	-	0	0.00	-	1	-	-	-	-	1	0.17
CD. Collared Dove (<i>Streptopelia decaocto</i>)	Green	-	-	-	-	-	-	0	0.00	-		2	-	-	-	2	0.33
CM. Common Gull (<i>Larus canus</i>)	Amber: WI	1	8	529	27	116	-	529	113.50	50		60	2	-	50	60	27.00
CU. Curlew (<i>Numenius arquata</i>)	Section4 1 species Amber: ERLOB	134	26	640	200	306	125	640	238.50	86	126	273	89	271	127	273	162.00
CW. Cetti's Warbler (<i>Cettia cetti</i>)	WCA Schedule 1 species Green	1	2	-	-	-	-	2	0.50	-	2	2	-	-	-	2	0.67
D. Dunnock (<i>Prunella modularis</i>)	Section4 1 species Amber: BDMp2	-	3	-	-	-	-	3	0.50	-	1	1	-	-	-	1	0.33

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
DN. Dunlin (<i>Calidris alpina</i>)	Birds Dir: An1 Red: WDp2; WDMp1, BDMr1, BL, WL	102	300	435	-	511	39	511	231.17	140	450	1014	389	675	14	1014	447.00
DN. Dunlin / SS Sanderling	N/A	-	-	-	-	-	-	-	-	-	-	700	-	-	-	700	116.67
ET. Little Egret (<i>Egretta garzetta</i>)	Birds Dir: An1 Green	12	10	2	1	3	1	12	4.83	1	9	3	1	1	-	9	2.50
FC. Firecrest (<i>Regulus ignicapilla</i>)	WCA Schedule 1 species Green	-	-	-	-	-	-	0	0.00	-	-	1		-	-	1	0.17
GA. Gadwall (<i>Anas strepera</i>)	Amber: BI	-	12	-	-	-	-	12	2.00	-	12	-	-	-	-	12	2.00
GB. Great Black-backed Gull	Amber: BDMp2, WDMp1	450	372	170	-	104	30	450	187.67	260	530	540	12	26	12	540	230.00

Species	Conserv ation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n
		18/10 /23	10/11 /23	18/12 /23	15/01 /24	01/02 /24	13/03 /24	Peak		18/10 /23	10/11 /23	18/12 /23	15/01 /24	01/02 /24	13/03 /24	Peak	
(Larus marinus)																	
GC. Goldcrest (Regulus regulus)	Green	-	1	1	-	-	--	1	0.33	2	-	-	-	-	-	2	0.33
GG. Great Crested Grebe (Podiceps cristatus)	Green	-	3	-	-	-	2	3	0.83	-	-	-	-	-	-	0	0.00
GP. Golden Plover (Pluvialis apricaria)	Birds Dir An1 Green	-	8	-	-	25	-	25	5.50	-	236	421	203	120	-	421	163.33
GR. Greenfinch (Chloris chloris)	Red: BDp1/2	-	-	-	-	-	-	0	0.00	-	-	-	-	1	-	1	0.17
GS. Great Spotted Woodpecker (Dendrocopos major)	Green	-	1	-	-	-	-	1	0.17	-	-	-	-	-	-	0	0.00

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
GV. Grey Plover (<i>Pluvialis squatarola</i>)	Amber WDMp1, WL	-	17	234	5	1	12	234	44.83	8	37	-	11	2	2	37	10.00
H. Grey Heron (<i>Ardea cinerea</i>)	Green	2	-	-	-	-	-	2	0.33	-	1	-	-	-	-	1	0.17
HG. Herring Gull (<i>Larus argentatus</i>)	Section 41 species Red: BDp2, WDp1, BI, WI	12	24	430	-	-	166	430	105.33	158	-	300	66	57	150	300	121.83
HS. House Sparrow (<i>Passer domesticus</i>)	Section 41 species Red: BDp2	-	4	-	-	-	-	4	0.67	-	-	-	-	-	-	0	0.00
K. Kestrel (<i>Falco tinnunculus</i>)	Amber: BDMp1/2	-	1	-	-	-	-	1	0.17	-	1	-	-	-	-	1	0.17

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
KF. Kingfisher (Alcedo atthis)	WCA Schedule 1 species Birds Dir An1 Green	-	-	-	-	-	-	0	0.00	-	1	-	-	-	-	1	0.17
KN Knot (<i>Calidris canutus</i>)	Amber: WL, WI	-	30	1	-	-	35	35	11.00	-	5	2	4	-	-	5	1.83
L. Lapwing (<i>Vanellus vanellus</i>)	Section 41 species Red: BDp2, ERLOB, BDMp1, WDMP2, WI	-	100	1650	-	2500	-	2500	708.33	-	3	2244	1260	1414	-	2244	820.17
LB. Lesser Black-backed Gull (<i>Larus fuscus</i>)	Amber: BL, BI	5	12	30	-	-	-	30	7.83	27	-	-	-	-	-	27	4.50
LI. Linnet (<i>Linaria cannabina</i>)	Section 41 species	-	11	-	-	-	-	11	1.83	-	-	-	-	-	-	0	0.00

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
	Red: BDp2																
MA. Mallard (<i>Anas platyrhynchos</i>)	Amber: WDMp1/2	44	1	17	28	2	2	44	15.67	11	5	9	17	2	1	17	7.50
MG. Magpie (<i>Pica pica</i>)	Green	-	5	-	-	-	-	5	0.83	-	-	-	-	-	-	0	0.00
MP. Meadow Pipit (<i>Anthus pratensis</i>)	Amber: BDMp2	5	-	-	44	8	-	44	9.50	3	-	3	-	-	-	3	1.00
MU. Mediterranean Gull (<i>Larus melanocephalus</i>)	Birds Dir: An1 WCA Sch1, Amber: BL	-	-	4	-	-	-	4	0.67	-	-	-	-	-	-	0	0.00
OC. Oystercatcher (<i>Haematopus ostralegus</i>)	Amber: ERLOB, WL, WI, BI	1606	2078	1818	1040	1250	900	2078	1448.67	857	458	1846	1100	1890	120	1890	1045.17

Species	Conservation Status	High Tide								Low Tide							
		Visit 1 18/10/23	Visit 2 10/11/23	Visit 3 18/12/23	Visit 4 15/01/24	Visit 5 01/02/24	Visit 6 13/03/24	Over all Peak	Mean	Visit 1 18/10/23	Visit 2 10/11/23	Visit 3 18/12/23	Visit 4 15/01/24	Visit 5 01/02/24	Visit 6 13/03/24	Over all Peak	Mean
PE. Peregrine falcon (<i>Falco peregrinus</i>)	WCA Sch1 Birds Dir: An1	-	-	-	-	-	-	0	0.00	1	-	-	-	2	1	2	0.67
PT. Pintail (<i>Anas acuta</i>)	Amber: ERLOB, BDMp1, BDMr1/2, BR, WL, WI	-	-	2	-	-	-	2	0.33	-	4	-	-	-	-	4	0.67
PW. Pied Wagtail (<i>Motacilla alba</i>)	Green	2	-	-	-	-	-	2	0.33	-	-	-	-	-	-	0	0.00
R. Robin (<i>Erithacus rubecula</i>)	Green	-	-	-	-	-	-	0	0.00	-	-	1	-	-	-	1	0.17
RB. Reed Bunting (<i>Emberiza schoeniclus</i>)	Section 41 species. Amber: BDMp2	1	2	-	-	3	-	3	1.00	3	1	3	1	1	-	3	1.50
RC Rock Pipit	Green	-	2	1	1	2	-	2	1.00	6	7	-	3	3	-	7	3.17

Species	Conserv ation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n
		18/10 /23	10/11 /23	18/12 /23	15/01 /24	01/02 /24	13/03 /24	Peak		18/10 /23	10/11 /23	18/12 /23	15/01 /24	01/02 /24	13/03 /24	Peak	
(Anthus petrosus)																	
RK. Redshank (Tringa totanus)	Amber: ERLOB, BDMp1, BDMr1/2, WI	98	50	41	21	90	33	98	55.50	9	77	48	30	46	9	77	36.50
RN. Raven (Corvus corax)	Green	1	-	-	-	-	-	1	0.17	-	-	1	-	-	-	1	0.17
RP Ringed Plover (Charadrius hiaticula)	Red: WDp1; BDMp1, WDMp2, W	-	-	-	-	-	-	0	0.00	-	12	3	-	-	-	12	2.50
S. Skylark (Alauda arvensis)	Section 41 species. Red: BDp2	4	3	-	5	-	-	5	2.00	3	-	1	-	-	-	3	0.67
SC. Stonechat (Saxicola rubicola)	Green	-	2	-	-	2	-	5	2.00	-	3	-	-	-	-	3	0.50

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
SD. Stock Dove (<i>Columba oenas</i>)	Amber: BI	-	-	-	-	-	-	2	0.67	-	10	-	-	-	-	10	1.67
SG. Starling (<i>Sturnus vulgaris</i>)	Section 41 species. Red: BDp1/.	-	5	-	-	45	-	0	0.00	-	-	40	-	-	-	40	6.67
SN. Snipe (<i>Gallinago gallinago</i>)	Amber: ERLOB, WDMp1, BDMr2	-	11	8	11	-	-	45	8.33	-	-	4	-	-	-	4	0.67
SS. Sanderling (<i>Calidris alba</i>)	Amber: WL	-	112	90	38	194	15	11	5.00	-	139	82	-	-	-	139	36.83
ST. Song Thrush (<i>Turdus philomelos</i>)	Section 41 species. Amber: BDMp2	-	-	-	-	-	-	194	74.83	-	-	-	-	1	-	1	0.17
SU. Shelduck	Amber: BDMp1,	19	-	60	-	48	8	0	0.00	11	9	9	2	16	7	16	9.00

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
(<i>Tadorna tadorna</i>)	WDMp1, WL																
SV. Shoveler (<i>Spatula clypeata</i>)	Amber: BI	2	16	41	79	113	25	60	22.50	12	-	41	44	66	35	66	33.00
T. Teal (<i>Anas crecca</i>)	Amber: WI	24	195	223	41	36	9	223	88.00	19	28	26	17	5	36	36	21.83
TE. Sandwich Tern (<i>Thalasseus sandvicensis</i>)	Bird Dir: Ann 1 Green	-	-	-	-	-	-	0	0.00	-	1	-	-	-	-	1	0.17
TT. Turnstone (<i>Arenaria interpres</i>)	Amber: WDMp1	-	-	6	4	10	19	19	6.50	-	-	2	-	2	-	2	0.67
TW. Twite (<i>Linaria flavirostris</i>)	Section 41 species. Red: HD, BDp	-	-	-	-	-	-	0	0.00	-	-	2	-	-	-	2	0.33

Species	Conservation Status	High Tide								Low Tide							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mean
		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak		18/10/23	10/11/23	18/12/23	15/01/24	01/02/24	13/03/24	Peak	
WA. Water Rail (<i>Rallus aquaticus</i>)	Amber: WR	-	2	-	-	-	-	2	0.33	-	-	-	1	-	-	1	0.17
WN Wigeon (<i>Mareca penelope</i>)	Amber: WI, WL	314	810	191	206	148	56	810	287.50	95	964	121	33	39	18	964	211.67
WR. Wren (<i>Troglodytes troglodytes</i>)	Amber: BI	-	-	-	-	-	-	0	0.00	-	-	1	-	-	-	1	0.17
YC. Caspian gull (<i>Larus cachinnans</i>)	Amber: WR	-	1	-	-	-	-	1	0.17	-	-	-	-	-	-	0	0.00

Table A.3 Inland (diurnal) and nocturnal (inland) detailed survey data

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
B. Blackbird (<i>Turdus merula</i>)	Green	4	15	7	7	2	5	15	6.67	-	-	-	-	-	-	-	-
BF. Bullfinch (<i>Pyrrhula pyrrhula</i>)	Green	-	-	-	-	-	1	1	0.17	-	-	-	-	-	-	-	-
BG Brent goose (<i>Branta bernicla</i>)	Section 41 species. Amber: BDMp2	-	7	-	-	-	-	7	1.17	-	-	-	-	-	-	-	-
BH. Black- headed Gull (<i>Chroicocep halus ridibundus</i>)	Amber: WL, WI	221	222	267	337	40	414	414	250. 17	-	-	-	-	-	1	1	0.1 7
BO. Barn owl (<i>Tyto alba</i>)	WCA Schedule 1 species	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.1 7

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n	Visit 1	Visit 1	Visit 2 20/01/ 24*	Visit 3 20/02 /24	Visit 4 07/03 /24 *	Visit 4 19/03 /24	Over all	Me an
		26/10 /23	27/11 /23	19/12 /13	22/01 /24	22/02 /24	12/03 /24	Peak		21/12 /23 *	08/01 /24	(East side only)	(West side only)	(Nort h of Stour only)	Peak		
Green																	
BT. Blue Tit (<i>Cyanistes caeruleus</i>)	Green	8	16		2		14	16	6.67	-	-	-	-	-	-	-	-
BZ. Buzzard (<i>Buteo buteo</i>)	Green	4	1	-	1	-	-	4	1.00	-	-	-	-	-	-	-	-
C. Carrion Crow (<i>Corvus corone</i>)	Green	3	14	15	1	17	12	17	10.3 3	-	-	-	-	-	-	-	-
CA. Cormorant (<i>Phalacroco rax carbo</i>)	Green	53	3	-	2	3	3	53	10.6 7	-	-	-	-	-	-	-	-
CB. Corn Bunting (<i>Emberiza calandra</i>)	Section41 species. Red: HD, BDp2, BDr2; BDMp1,	4	-	-	-	1	-	4	0.83	-	-	-	-	-	-	-	-

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
	BDMr1, WDMr																
CC. Chiffchaff (<i>Phylloscop us collybita</i>)	Green	1	-	1	-	1	4	4	1.17	-	-	-	-	-	-	-	-
CD. Collared Dove (<i>Streptopeli a decaocto</i>)	Green	1	-	-	-	-	-	1	0.17	-	-	-	-	-	-	-	-
CH. Chaffinch (<i>Fringilla coelebs</i>)	Green	20	7	5	5	3	6	20	7.67	-	-	-	-	-	-	-	-
CM. Common Gull (<i>Larus canus</i>)	Amber, WI, WI	-	70				10	70	13.3 3	-	-	-	-	-	-	-	-
CO. Coot (<i>Fulica atra</i>)	Green	-	-	-	-	2	2	2	0.67	-	-	-	2	2	6	6	1.6 7

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
CU. Curlew (<i>Numenius arquata</i>)	Section41 species. Amber: ERLOB	-	111	20	4	11	2	111	24.6 7	161	12	-	-	-	-	161	28. 23
CW. Cetti's Warbler (<i>Cettia cetti</i>)	WCA Schedule 1 species Green	20	12	4	1	10	10	20	9.50	-	-	-	-	-	-		
D. Dunnock (<i>Prunella modularis</i>)	Section41 species. Amber: BDMp2	6	1	1	1	3	5	6	2.83	-	-	-	-	-	-		
DN. Dunlin (<i>Calidris alpina</i>)	Birds Dir: An1 Red: WDp2; WDMp1, BDMr1, BL, WL	-	-	-	19	35	13	35	11.1 7	32	33	2	-	-	-		
ET. Little Egret	Birds Dir An1	-	-	-	-	-	1	1	0.17	-	-	-	-	-	-		

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
(<i>Egretta garzetta</i>)	Green																
FF. Fieldfare (<i>Turdus pilaris</i>)	WCA Schedule 1 species Red: BDP1/2, BDr1, BDMr2, BR	-	379	24	6		1	379	68.3 3	-	184	1	39	-	-	184	37. 33
FP. Feral Pigeon (<i>Columba livia domestica</i>)	N/A	100						100	16.6 7								
G. Green Woodpecke r (<i>Picus viridis</i>)	Green	1	-	-	-	-	1	1	0.17	-	-	-	-	-	-		
GA. Gadwall	Amber: BI	-	-	-	-	-	-	1	0.17	-	-	19	-	-	-	19	3.8 3

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Over all	Mea n	Visit 1	Visit 1	Visit 2	Visit 3	Visit 4	Visit 4	Over all	Me an
		26/10/23	27/11/23	19/12/13	22/01/24	22/02/24	12/03/24	Peak		21/12/23 *	08/01/24	20/01/24* (West side only)	20/02/24	07/03/24 * (North of Stour only)	19/03/24	Peak	
(Mareca strepera)																	
GB. Great Black-backed Gull (Larus marinus)	Amber: BDMp2, WDMp1	-	12	2	-	-	1	12	2.50	-	-	-	-	-	-		
GC. Goldcrest (Regulus regulus)	Green	5	-	-	-	-	1	5	0.83	-	-	-	-	-	-		
GE. Green Sandpiper (Tringa ochropus)	WCA Sch1. Amber: BDMr1, BR, WR	1	-	-	-	-	4	4	0.83	-	-	-	-	-	-		
GG. Great Crested Grebe (Podiceps cristatus)	Green	5	5	5	-	3	3	5	3.50	-	-	-	-	-	-		

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
GO. Goldfinch (Carduelis carduelis)	Green	28	12	-	-	-	-	28	6.67	-	-	-	-	-	-		
GP. Golden Plover (Pluvialis apricaria)	Birds Dir An1 Green	-	-	-	1	-	-	1	0.17	13	6	-	-	-	-	13	3.17
GT. Great Tit (Parus major)	Green	2	5	-	1	1	6	6	2.50	-	-	-	-	-	-		
H. Grey Heron (Ardea cinerea)	Green	4	5	2	9	2	1	9	3.83	-	-	-	-	1	-	1	0.17
HG. Herring Gull (Larus argentatus)	Section 41 species Red: BDp2, WDp1, BI, WI	1	252	57	81	101	150	252	107.00	-	-	-	-	-	-		

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
HS. House Sparrow (Passer domesticus)	Section 41 species. Red: BDp2	-	40	-	-	-	-	40	6.67	-	-	-	-	-	-		
J. Jay (Garrulus glandarius)	Green	2	-	-	-	-	-	2	0.33	-	-	-	-	-	-		
JD. Jackdaw (Coloeus monedula)	Green	20	-	-	-	-	-	20	3.33	-	-	-	-	-	-		
JS. Jack Snipe (<i>Lymanocryptes minimus</i>)	Green		1	-	-	-	-	1	0.33	-	-	-	4	2	-	4	1
K. Kestrel (Falco tinnunculus)	Amber: BDMp1/2	4	4	-	3	1	-	4	2.00	-	-	-	-	-	-		

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
L. Lapwing (Vanellus vanellus)	Section 41 species Red: BDp2, ERLOB, BDMp1, WDMP2, WI	-	245	179	154	3	22	245	100. 50	57	260	12	96	5	2	260	72. 0
LB. Lesser Black- backed Gull (Larus fuscus)	Amber: BL, BI	-	-	-	-	6	8	8	2.33	-	-	-	-	-	-		
LI. Linnet (Linaria cannabina)	Section 41 species Red: BDp2	39	4	2	21	-	-	39	11.0 0	-	-	-	-	-	-		
LR. Lesser Redpoll	Section 41 species	2	-	-	-	-	-	2	0.33	-	-	-	-	-	-		

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
(<i>Acanthis cabaret</i>)	Red: BDp2																
LT. Long-tailed Tit (<i>Aegithalos caudatus</i>)	Green	23	8	-	-	-	2	23	5.50	-	-	-	-	-	-		
MA. Mallard (<i>Anas platyrhynchos</i>)	Amber: WDMp1/2	25	2	1	-	13	21	25	10.3 3	7	1	21	46	10	41	46	21.00
MG. Magpie (<i>Pica pica</i>)	Green	4	4	8	2	3	1	8	3.67	-	-	-	-	-	-		
MH. Moorhen (<i>Gallinula chloropus</i>)	Amber: BDMp2	2	1	2	2	1	1	2	1.50	-	-	-	3	-	-	2	0.50
MP. Meadow Pipit (<i>Anthus pratensis</i>)	Amber: BDMp2	35	22	10	38	24	169	169	49.6 7	-	-	-	-	2	-	2	0.33

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
MR. Marsh Harrier (Circus aeruginosus)	Birds Dir: An1 WCA Sch1, Amber: BL	1	1	-	1	-		1	0.50	-	-	-	-	-	-		
MS. Mute Swan (Cygnus olor)	Green	6	4	-	30	20	12	30	12.0 0	-	-	1	4	-	4	4	1.5 0
PH. Pheasant (<i>Phasianus colchicus</i>)	Green	6	4	-	1	-	1	6	2.00	-	-	-	-	-	3	3	0.5
PT. Pintail (Anas acuta)	Amber: ERLOB, BDMp1, BDMr1/2, BR, WL, WI	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	0.3 3
PW. Pied Wagtail	Green	3	3	2	7	1	91	91	17.8 3	-	-	-	-	-	-		

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
(Motacilla alba)																	
R. Robin (Erithacus rubecula)	Green	5	6	1	-	3	7	7	3.67	-	-	-	-	-	-		
RB. Reed Bunting (Emberiza schoeniclus)	Section 41 species. Amber: BDMp2	12	5	-	2	14	-	14	5.50	-	-	-	-	-	-		
RE. Redwing (Turdus iliacus)	WCA Schedule 1 species. Red: BDMr1/2, BR	25	109	32	-	10	375	375	91.8 3	-	-	-	2	1	1	2	0.6 7
RI. Ring- necked Parakeet (Psittacula krameri)	Green	2	-	-	-	-	-	2	0.33	-	-	-	-	-	-		

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
RK. Redshank (Tringa totanus)	Amber: ERLOB, BDMp1, BDMr1/2, WI	-	11	10	6	-	-	11	4.50	17	-	-	7	2	-	17	4.3 3
RN. Raven (Corvus corax)	Green	-	1	-	-	1	2	2	0.67	-	-	-	-	-	-		
RO. Rook (Corvus frugilegus)	Amber: ERLOB	13	-	1	-	-	-	13	2.33	-	-	-	-	-	-		
RP. Ringed plover	Red: WDp1; BDMp1, WDMp2, W	-	-	-	-	-	-	-	-						1	1	0.1 7
S. Skylark (Alauda arvensis)	Section 41 species. Red: BDp2	102	251	-	164	99	89	251	117. 50	-	23	1	-	-	-	23	4.0 0

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
SC. Stonechat (Saxicola rubicola)	Green	-	3	-	1	-		3	0.67	-	-	-	-	-	-	-	-
SD. Stock Dove (Columba oenas)	Amber: BI	24	20	-	23	10		53	22.8 3	-	-	-	-	-	-	-	-
SG. Starling (Sturnus vulgaris)	Section 41 species. Red: BDp1	340	100	60	35	4	490	490	171. 50	-	-	-	-	-	-	-	-
SH. Sparrowha wk (Accipiter nisus)	Amber: BDMp1	-	1	-	-	-		1	0.17	-	-	-	-	-	-	-	-
SN. Snipe (Gallinago gallinago)	Amber: ERLOB, WDMp1, BDMr2	3	28	4	37	-	21	37	15.5 0	8	70	178	94	14	14	178	63. 00

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
ST. Song Thrush (Turdus philomelos)	Section 41 species. Amber: BDMp2	4	5	2	1	5	10	10	4.50	-	-	1	-	-	-	1	0.1 7
SU. Shelduck (Tadorna tadorna)	Amber: BDMp1, WDMp1, WL	-	-	-	-	10	12	12	3.67	-	-	-	8	-	8	8	2.6 7
SV. Shoveler (Spatula clypeata)	Amber: BI	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9	1.5 0
T. Teal (Anas crecca)	Amber: WI	-	-	6	1	1	15	15	3.83	6	39	61	110	2	11	110	38. 17
UM. Unidentified duck	N/A	-	-		-	-	-	-	-	-	-	-	-	-	78	78	13. 00

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
		Visit 1 26/10 /23	Visit 2 27/11 /23	Visit 3 19/12 /13	Visit 4 22/01 /24	Visit 5 22/02 /24	Visit 6 12/03 /24	Over all Peak	Mea n	Visit 1 21/12 /23 * (East side only)	Visit 1 08/01 /24	Visit 2 20/01/ 24* (West side only)	Visit 3 20/02 /24	Visit 4 07/03 /24 * (Nort h of Stour only)	Visit 4 19/03 /24	Over all Peak	Me an
UO. Unidentified owl	N/A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.1 7
WA. Water Rail (Rallus aquaticus)	Green	-	3	-	-	1		3	0.67	-	-	-	-	-	1	1	0.1 7
WI. Water Pipit (Anthus spinoletta)	Amber: WR	-	-	-	-	-	1	1	1.17	-	-	-	-	-	-		
WK. Woodcock (Scolopax rusticola)	Red: BDr2; BDMr1	-	-	-	-	-	-	-	-	-	-	9	13	-	-	13	3.6 7
WN. Wigeon (Mareca penelope)	Amber: WL, WI	-	-	-	-	-	-	-	-	3	15	-	22	-	4	22	7.3 3
WP. Woodpigeo n (Columba palumbus)	Amber: BI	321	63	28	31	31	54	321	88.0 0	-	-	-	1	30	-	30	5.1 7

Species (BTO code, common name, latin name)	Conserv ation Status	Inland (diurnal)								Nocturnal							
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WR. Wren (Troglodyte s troglodytes)	Amber: BI	6	4	3	2	5	9	9	4.83	-	-	-	-	-	-	-	-
WW. Willow Warbler (Phylloscop us trochilus)	Amber: BDMp2	1	-	-	1	-		1	0.17	-	-	-	-	-	-	-	-
Y. Yellowham mer (<i>Emberiza citrinella</i>)	Section 41 species. Red: BDp2, BDMp1	2	-	-	-	2	3	3	1.17	-	-	-	-	-	-	-	-
YW. Yellow Wagtail (<i>Motacilla flava</i>)	Section 41 species. Red: BDp2; BDMp1, BDMr1/2	-	1	-	-	-	-	1	0.17	-	-	-	-	-	-	-	-

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