Biodiversity

WINTER 2020

BOVINES FOR BIODIVERSITY
What makes cows good for conservation?

CRAB WARS
Alien crabs threaten Alderney's coastal waters

ALDERNEY wildlife TRUST

Protecting Alderney's wildlife for the future

Welcome

The future depends on what you do today

2020 has taught us that life can change beyond recognition in moments and that we should not ignore the evidence and projections of good science. COVID-19 was predictable, the specifics of what happened thereafter may not have been, but the road itself was charted by many. We benefited from this foresight, our medical community planned for a pandemic and because of this reacted quickly and aggressively. Consequently, we have a very different perspective on 2020 to many others. Looking to the future of our world it is perhaps wise to consider what is known:

1. Global climates are changing, sea levels are rising and 30% of all species on earth are expected to go extinct in the next 30 years - all happening at a rate unprecedented in Earth's natural history.
2. A healthy natural environment provides services, much less obvious than those of the NHS but no less vital. These include clean air, water, healthy soils and pollination of crops. Less diverse ecosystems (the community of living organisms which make up our environment) are often less robust and cannot cope with sudden change.
3. Islands ecosystems tend to be less flexible and therefore less able to cope with change. They tend to fail faster and have less ability to recover, because of their smaller and more isolated nature.
4. Alderney is not immune from the global trends. There are fewer species of native wild flower than 70 years ago and an area more than 4 times the size of Braye Common has been overrun by a single alien species which has invaded in the same period.

The world is waking up to these threats, yet despite the majority of Alderney's tourism being derived from our island's wildlife and natural beauty, we afford the least protection for wildlife and the environment compared to almost any other nation.

2021 needs to be a year of taking action for the future. AWT will be working to support the government and community to establish how best to protect our island so that its wildlife and community thrives: we can only do this with our members' support.

By AWT CEO Roland Gauvain

Contents

WILD NEWS

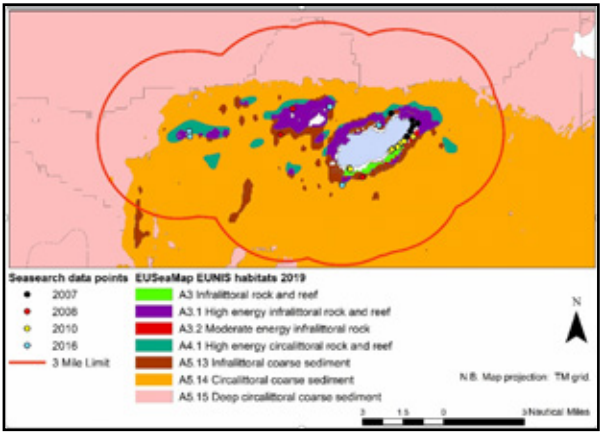
All the latest news from Alderney Wildlife Trust

New recruits

This winter two new voluntary staff members joined the team. Jack Harper, the new Conservation Officer, and Lorna West, the new Outreach Officer. Both are passionate about the natural world with backgrounds in conservation. Jack has a BSc in Ecology and Environment from the University of Liverpool and an MSc in Conservation Biology from the University of Cape Town, while Lorna has a BSc in Conservation Biology from the University of West of England in Bristol, an MSc in Oceanography from the University of Southampton, as well as a PGCE in Secondary Science from the University of Chichester. They are both looking forward to their year on Alderney, working with the community to enhance and protect the island's biodiversity.

Dr Mel's marine update

AWT's Living Seas Coordinator, Dr Mel Broadhurst-Allen, has recently carried out an assessment of Alderney's territorial waters, with the aim to describe Alderney's marine habitats and species within the intertidal, subtidal and pelagic zones.



EUSEAMAP EUNIS MARINE HABITAT TYPES, LOCATION AND EXTENT INFORMATION VERIFIED BY SEASEARCH FIELD-BASED INFORMATION WITHIN ALDERNEY'S TERRITORIAL WATERS (TAKEN FROM JNCC EUSEAMAP, 2019).

The assessment identified approximately 122 marine habitats, (see figure). Important marine species, from marine mammals and fish, to invertebrates and plankton were also identified. Much of the evidence for this assessment was recorded by the AWT, through field-based surveys, citizen science projects (i.e. Seasearch) and supporting external academic studies.

This assessment is now being used to develop the AWT's Alderney Living Seas Programme (LSP) of works for 2021. This includes designing new field-

based habitat surveys, species surveys and citizen science projects. It has also led to the creation of the Marine Evidence Portal. The portal aims to collate robust, long-term marine habitat and species information, enabling AWT to respond to issues, such as climate change, and provide other marine conservation projects with reliable and accurate data.

Interested in getting involved? Email Dr Mel at **marine@alderneywildlife.org.**


ATLANTIC PUFFIN | AWT

PuffinCam/GannetCam

In 2021, GannetCam launches alongside PuffinCam. GannetCam will stream from Alderney's coastline overlooking the Les Etacs gannetry, home to over 6,000 pairs of Gannets.

Watch out for the Gannets touching down this winter and Puffins arriving in the waters off Burhou throughout March. Tune in at 2pm and 4pm every day for scheduled colony tours.

Sula is back!

SULA OF BRAYE | JACK BUSH

We hope to hit the 2021 season running in March with a newly refitted work boat and a new calendar of boat tours, now offering more trips to the Grey Seal colony behind Burhou as well as both Gannet colonies and Burhou's Puffins.

Alderney's Ormers


GREEN ORMER | LORNA WEST

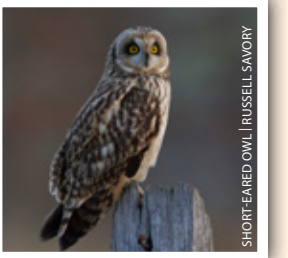
If out investigating our rocky shores, watch out for Green Ormers with yellow plastic tags. If over 80mm, please report the location found with shell dimensions.

Top Sightings this Winter...

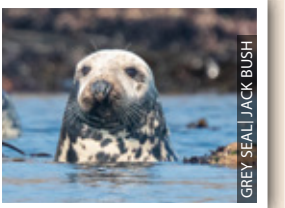
A pod of **15-17 dolphins** were spotted playing in the waves off the south coast by Longis Bay on the 22nd of November


BOTTLENOSE DOLPHINS | JACK BUSH

A Long-eared Owl was spotted by Cachalière Pier on the 11th of December


SHORT-EARED OWL | RUSSELL SAVORY

There have been lots of reported sightings of Alderney's Grey Seal population this winter suggesting they are doing well


GREY SEAL | JACK BUSH


TINA AND REGINA: AWT'S GRAZING CATTLE | JACK HARPER

Bovines for Biodiversity

For 8 centuries cattle have grazed Alderney's landscape,

creating a matrix of semi-natural habitats across the land, from unimproved grassland to extensive farmland and coastal heathland. Many of the island's species are now dependent on the existence of these habitats for their survival.

Unfortunately, the island's grazing regime was abandoned in the second world war, leaving these key habitats to become overgrown with scrub and invasive plants such as bramble, Bracken and coarse grasses.

At least twenty species of flora have now been recorded as lost from Alderney, many of which are considered endangered to the British Isles.

This is where AWT's grazing cattle come in, Tina and Regina. You may have seen them strolling along the grassy hillside at Longis Nature Reserve (LNR). They are here to restore equilibrium to our semi-natural habitats, giving wildflowers and grasses an opportunity to regrow.

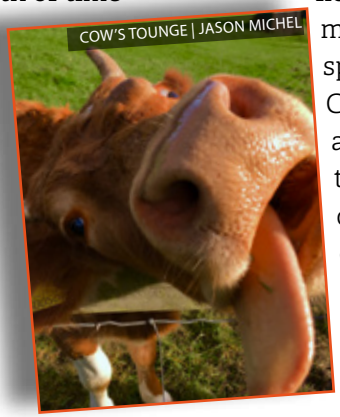

LONGIS NATURE RESERVE| JOSHUA COPPING

You may be wondering exactly how cows chomping down on vegetation helps to actually increase the abundance and type of plants - it does sound rather counter-intuitive! It's all down to the cow's tongue. You see, unlike sheep or horses which use their teeth, cows pull tufts of vegetation with their tongues. This means vegetation is not grazed too close to the ground. This, combined with the cow's wide mouth, makes it very difficult for the

cow to selectively graze flower heads and herbage and often means sections of grassy tussocks are left to grow. This creates a beautifully biodiverse botanical environment which in turn supports insects and small mammals.


ALDERNEY SEA LAVANDER |LYNSEY PAYNE

Of course, you can't expect to put 1000 cattle in a small field and a beautiful wildflower meadow to appear overnight. For this, you will first need a bit of patience and to consider the following; the breed of cattle, the number of individuals per a given area, and the length of time they spend grazing that given area. Get this wrong and you might suffer from overgrazing, where you have something that resembles a well kept lawn but with very little wildlife actually present. Alternatively, you might suffer from under-grazing, where a few dominant plant species take over the site and prevent anything else from growing. As you can see, it's important to get the balance right!


COW'S TOUNGE | JASON MICHEL

Our two conservation cattle are essential in managing some of the island's most valuable wildlife habitats,

especially the grassland found on LNR, which consists of a mix of coastal, dune, and semi-improved grassland. In fact, the eastern part of the island is thought to support more than **500** species of flowering plants and support one of the highest proportional diversities of vascular plants in the British Isles. Alderney Sea-lavender, an endemic species, can also be found on LNR, along with endangered species such as Small-flowered Catchfly and many UK nationally rare species such as Sand Crocus, Small Hare's-ear and Hairy Bird's-foot-trefoil. That's a whole lot of plants and a whole lot of reasons to be proud of Alderney's floral diversity!

So next time you are walking through LNR, and you see Tina and Regina chomping away on some tattered bit of Bracken, smile in the knowledge that these cows are in fact our bovine biodiversity superheroes; here to save our flora!


SAND CROCUS |LYNSEY PAYNE

By Lorna West

Alderney's Dragonflies: Lessons for the Future

Alderney's environment and wildlife have long-enjoyed much attention, both from residents and researchers from further afield. It is home to expert naturalists and even boasts its own Wildlife Trust. How many similarly sized UK villages can make the same claim? However, its status as a small, isolated island means that it cannot benefit from the expertise of scientific bodies (as a small English village might). For practical purposes, our ecological monitoring must be dealt with 'in-house'. There is no better example of this than the case of Alderney's dragonflies.

Let's rewind a few decades, to a time before the AWT existed (hard to imagine!). Alderney was home to a staggering diversity of dragonflies and damselflies for an island of its size. Between resident and migrant species,

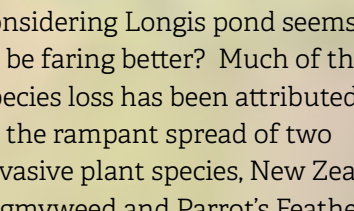
Alderney could lay claim to 19 species (the UK only has 57!)

We know this thanks to the testimony of on-island experts such as David Wedd. However, knowledge of population sizes, distribution and their life on Alderney has been lost to time. Local knowledge suggests much of this diversity was focused around Mannez Quarry pond. Rare species like Red-veined Darters and Large Red Damselflies could once be found residing in Mannez pond. Nowadays, you would be hard pressed to see more than a few species of dragonfly frequenting Mannez. Surveys in 2019 reported one species, the Emperor Dragonfly, with 2020

LARGE RED DAMSELFLY | MACRO.PAUL

surveys performing little better, only adding two additional species; the Migrant Hawker and the Common Darter. You'd be better off mooching around Longis Bird Hide in search of dragonflies, where a far more respectable nine species were recorded this year, including the Golden-ringed dragonfly.

How can we explain the catastrophic loss of biodiversity at Mannez pond, especially considering Longis pond seems to be faring better? Much of the species loss has been attributed to the rampant spread of two invasive plant species, New Zealand Pigmyweed and Parrot's Feather.

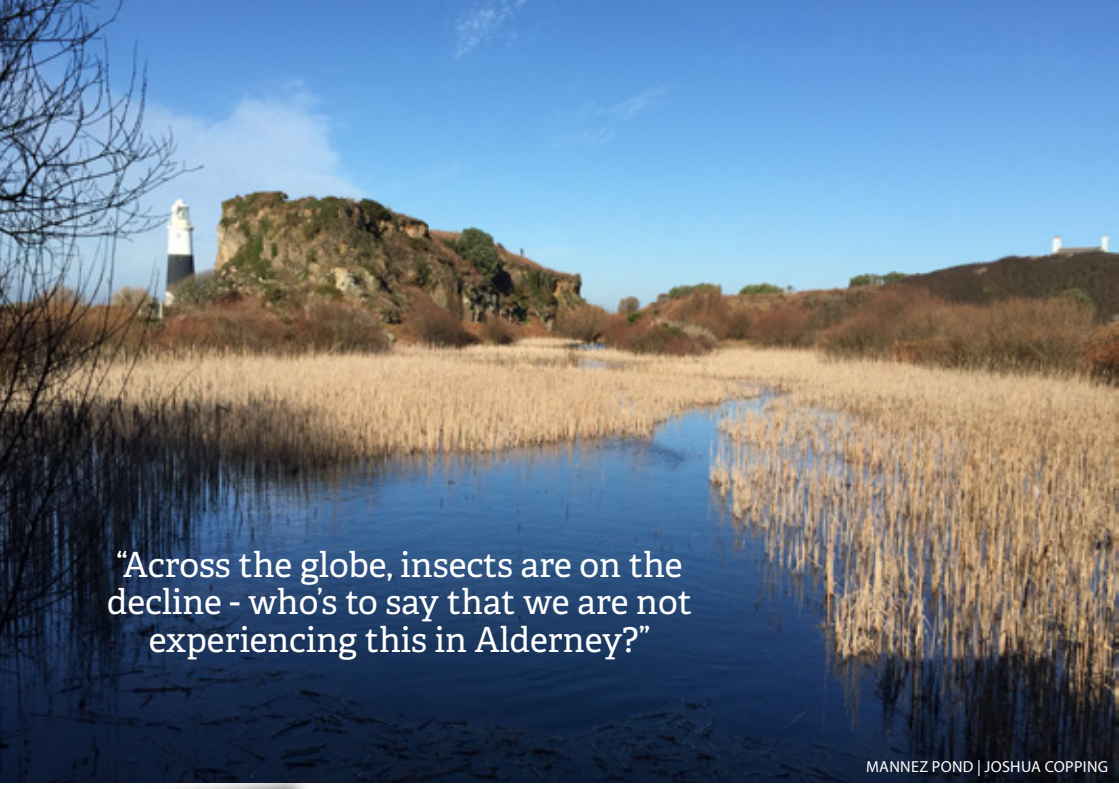


NEW ZEALAND PIGMYWEED| PHILIP PRECEY

Both species are banned from sale in the UK and it is an offence to grow them in the wild. But not here on Alderney!

These species damage wetland ecosystems by out-competing native species, impeding water flow and causing oxygen depletion. Thought to have been introduced into the wild in Alderney in the 1980s from a home pond, New Zealand Pigmyweed is established throughout Mannez pond. In the 2000's, the States and the AWT undertook major control. This method was partially successful, however had to be stopped due to changes in licensing. Following this, the AWT's conservation volunteers stepped up to the plate. Manual and mechanical excavation, while effective in the long term, is labour intensive and the pigmyweed regenerates quickly. Consequently, since 2016, no major removal has occurred. The pigmyweed has increased in density and extent. Mannez pond now has almost no open water, meaning it is a much less suitable habitat for dragonflies.

BACKGROUND IMAGE: GOLDEN RINGED DRAGONFLY | VAUGHAN MATTHEWS



"Across the globe, insects are on the decline - who's to say that we are not experiencing this in Alderney?"

MANNEZ POND | JOSHUA COPPING

COMMON DARTER | CHRIS LAWRENCE

The pigmyweed has, as of yet, failed to reach Longis Pond, perhaps explaining why Longis pond has remained hospitable to dragonflies.

Now that we have probable cause we should be able to make quick work of the problem, or at least make a start on tackling this issue. However, it is at this point that the shortcomings of our past monitoring work come into play.

We heavily suspect invasive species to be the leading cause of dragonfly declines, we are also in the midst of an ecological crisis.

Across the globe, insects are on the decline - who's to say that we are not experiencing this in Alderney? Climate change will lead to range shifts in several species. Indeed, despite the disheartening situation, we seem to be welcoming more and more Migrant Hawkers in summer. Disentangling these effects, as well as natural annual variation, requires large datasets over several years, which we

RED-VEINED DARTER | DAVID MARTIN

do not have at our disposal. Additionally, with the data available, proving species loss is difficult, and proving population declines is impossible. Many past records do not come from ecological surveys, but are instead opportunistic recordings. Though this means that we can draw up species lists, we are unable to comment on population trends or on species diversity. Steps are being taken to remedy this situation. In 2019, the AWT put in place a dragonfly survey scheme which will, in time, allow us to more closely monitor our island's dragonfly populations.

Regarding dragonflies, we can only redouble our efforts to restore Mannez pond to its former glory. There is cause for careful optimism. Alderney's dragonflies are unlikely to suffer from the leading causes of dragonfly declines in the UK; loss of habitat through urbanisation and water pollution due to pesticide use.

Once we can largely control these invasives, now-absent species like Red-veined Darters and Large Red Damselflies will return.

In the meantime, you can enjoy watching dragonflies dart about our reserve from the Longis Bird Hide, and help them by creating a wildlife pond in your garden, ensuring it is filled with native, dragonfly-friendly plants.

By Thomas Marceau

BLUE AZURE DAMSELFLY | MACRO PAUL

BANDED DEMOISELLE | MARK HAMBLIN/2020VISION

SOUTHERN MARSH-ORCHID | TERRY WHITTAKER

Alderney's Flora: Lost and Found

Over 1,000 species of plant have been recorded on Alderney

since 1839 when the first records were published. In 2003 the Vice-County Census Catalogue of the Vascular Plants of Great Britain, The Isle of Man and the Channel Islands showed Alderney to have a wild flower density more than 100 times that of the average U.K. Vice-County and ten times that of the larger Channel Island neighbours.

Sadly, gradual loss of on island agriculture has proliferated the spread of Bracken, Gorse, bramble and Blackthorn leading to the disappearance of finer plants.

There are other threats too: climate change leading to storm events, spread of invasive plants such as Sour Fig and related species and over-intensive management, to name but a few. The above factors all lead to loss of habitat, which in turn contributes to species decline.

Until 1976, following a huge storm, Alderney was the last known site in the British Isles for Purple Spurge which is now classified as extinct in the wild. Red Bartsia, never common, disappeared in the early 2000s as a result of over enthusiastic mowing of the verge on which it grew. Southern Marsh-orchid could be found each year in the Bonne Terre valley until 2005 when its wet meadow location was converted to create a settling pond for the Water Board; despite efforts to re-create the habitat this plant has not been re-found.

NOTTINGHAM CATCHFLY | LYNSEY PAYNE

More recently, Adder's -tongue, for which there was one known site in Mannez Quarry, has been lost to the invasive New Zealand Pigmyweed and I have not found the attractive night-flowering Nottingham Catchfly since 2007: it may still be present but the site I knew it from has long succumbed to Gorse, Blackthorn and bramble.

These are some of the higher profile

ADDER'S TONGUE| BRUCE SHORTLAND

plants we have lost but there will be many other less obvious species no longer found on Alderney. A team from the Botanical Society of Britain and Ireland (BSBI) visited the island in 2019 as part of the 2020 floral Atlas project, their aim being to find as many as possible of those species attributed to Alderney in the previous Atlas (published in 2002 based on fieldwork carried out between 1987 - 1999) for which there had been no records submitted since the turn of the century. Some of these were successfully re-found and recent records for others added, but there remain many gaps.

New species have been discovered. A lot of them are alien plants, imported accidentally or deliberately, or entering mixed with agricultural seeds.

These relatively recent arrivals include exotics and garden escapees such as Tree Aeonium, Umbrella Grass, Sumac and Purple Toadflax. Plants such as Yellow Rattle and Salad Burnet, which are common on mainland Britain, have probably been part of a wildflower seed mix and sown deliberately and the spectacular Crimson Clover, with its bright red conical flowers, has been planted as part of a bee crop at the side of Tourgis Hill. During their visit in 2019 the British botanists found Black Bryony in the Bonne Terre valley. This is likely to have been simply over-looked as it is set back from the path amongst ivy and honeysuckle: the flowers are greenish and insignificant but it produces attractive shiny red berries in the autumn. Earlier this year I found Hoary Plantain on a grassy verge: this unspectacular plant was not on the Alderney list but again may have just gone unnoticed, it was chance that I was in the right place at the right time and it caught my eye: a few days later the verge had been mowed...

CRIMSON CLOVER |LYNSEY PAYNE

We are very lucky to have the wonderful diversity of wildflowers that we do but it is imperative we do not lose sight of the fact that this current abundance is not guaranteed for the future.

By Lindsay Payne

HOARY PLANTAIN| PHILIP PRECEY

SALAD BURNET| VAUGHN MATTHEWS

BLACK BRYONY BERRIES | LINDSAY PAYNE

‘Long-term Monitoring’. What is it and why bother?

Monitoring is part of our daily lives. We use it to track changes in the weather, stocks, the prices of houses, oil and gold or patterns of traffic movement and voting at exit polls. Many of us regularly monitor our health with regular visits to the GP or by stepping on the bathroom scales. We make decisions about what to do based on this information. Monitoring keeps us informed, helps us decide what to do to stay well, maintain or improve our status quo but also alerts us to future problems should they occur.

Monitoring the environment or ecosystems is similar to monitoring our health. There are both short-term and long-term indicators of ecosystem health. However, in general ecosystems require long-term monitoring because they are complex, sensitive to many factors and tend to change slowly.

In ecology, long-term monitoring requires consistently repeated recording of biological, but also sometimes physical and chemical variables, over time to identify change. It is only through these kind of observations that we can evaluate the health of our natural environment and make science-based management decisions to maintain or improve its condition.

Sometimes criticised for ‘costing too much whilst delivering too little’ programmes of environmental monitoring nevertheless play a vital scientific role in revealing long-term trends

BACKGROUND IMAGE: RINGED PLOVER | JOSHUA COPPING

that can lead to new knowledge and understanding. Monitoring is also essential for evaluating environmental planning and policy. Without monitoring, projects cannot prove their success or identify areas for improvement. It is therefore integral to any ecological research, appraisal, plan or policy.

To aid environmental restoration and conservation management, monitoring is combined with research and modelling. The monitoring tells us what is happening, while research tells us why something is happening, and modelling helps to tell us what can happen. Monitoring programmes do not merely provide counts of species. The results can be integrated into research objectives. Monitoring programmes can be designed to test hypotheses or to validate quantitative models used for planning and policy. Long-term observations also reveal trends and patterns that can help interpret experimental results or yield new research hypotheses.

Ecosystems are complicated and managing them requires an adaptable approach. This is because we often cannot be certain how an ecosystem will respond to management, restoration or mitigation measures. But applying a system of learning to an adaptive management strategy can reduce the uncertainty inherent in environmental management. Ideally this system of learning comprises both experimentation and monitoring. However, given constraints in time, money and sometimes space, monitoring is usually the primary or only means of learning.

Here, in Alderney,

monitoring plays a key role in the AWT's conservation management strategy

and with new insight gained with every passing year, has had an increasing influence on the decisions it makes to protect species and habitats on the island. Perhaps AWT's most established monitoring programme concerns the island's breeding seabirds, notably the abundance and productivity of the Gannets, Fulmars and Puffins. Consistent records for these species go back many years and have been collected by AWT since the inception of the Ramsar site in 2005. These records built on the data

NORTHERN GANNETS | JACK BUSH

that had already been recorded by members of La Société Guernesiaise and other locals in previous years. It has enabled us to maintain oversight of this precious piece of the island's natural heritage andallowed us to follow the steady increase in the numbers of gannets nesting on Les Etacs and Ortac (at least up until the last census undertaken in 2015) but also their more recent declines in productivity. It's also kept us informed about the numbers of Puffins nesting on Burhou. Notably the population's small and apparently intransigent size and continued vulnerability to disturbance.

To better inform its decision making AWT has begun to set in place further programmes of monitoring in a variety of sectors.

These are targeting key species or species groups whose abundance and/or productivity can act as bio-indicators of the state of the environment. They include specific species of birds such as swallow productivity and wintering Water Rail abundance but also bats and various invertebrates such as butterflies and dragonflies as well as flora (via NVC and phase 1 habitat surveys) and marine species (via intertidal surveys and Seasearch dives).

RINGED PLOVER EGGS | JUSTIN HART

Some of our monitoring targets vulnerable species such as Slow Worms and Ringed Plover and is primarily aimed at individual species

LES ETACS | AWT

protection. For example, closer monitoring of beach nesting Ringed Plover has enabled us to identify the causes of nest failure and chick loss. This information will help us decide if policies such as where, when, and if restricting beach use are necessary to improve the bird's productivity and maintain the island's population.

Other monitoring is also helping us find invasive species, eliminate them or control their spread. For example, the control of Sour Fig is an on-going battle on Alderney and continued monitoring of its distribution will be crucial to preventing it's spread. Left unchecked this species can rapidly overgrow vast tracts of coastal habitat, devastating the natural biodiversity in the process and leaving a monoculture devoid of life.

SOUR FIG | LORNA WEST

It's timely and effective removal, largely through the efforts of the AWT's conservation volunteers has played a significant role in limiting its coverage and has helped to maintain the island's floral biodiversity.

Overall, monitoring helps AWT more effectively protect species and habitats, control the spread of invasive species, undertake rat control and practical habitat management as well as assess the impact of changes in land use and climate.

Monitoring will remain key to fulfilling our aim to protect the island's biodiversity.

Without an itinerary of species and a consistent watch over them we will never know what species we have let alone which ones are in decline or have been lost. Long-term monitoring will be crucial to protect our species and habitats. It will help us manage the environment more effectively, control invasive species and unwanted predators as well as assess the impacts of land/sea use and climate change now and into the future.

By Justin Hart

Alderney: an insect paradise


CLOUDED YELLOW | ANDREW KERR

Alderney is an insect paradise

– we keep saying this, but it is true! Our small island has almost every kind of habitat, natural and cultivated, and insects of all kinds swarm in summer but are also abundant throughout much of the rest of the year. Butterflies and moths are the most noticeable, obviously, but the other orders of insects are frequently very numerous, and often brightly coloured. The true 'bugs' (Hemiptera) have the spectacular Black-and-red frog-hoppers and equally brightly-coloured shield-bugs. The beetles (Coleoptera) are very abundant and the burying beetles often appear in the same scarlet-and-black colours. Diptera (flies) appear in a big range of shapes and sizes, as do Hymenoptera (bees, wasps and ants.)


BLACK-AND-RED FROGHOPPER | RACHEL SCOPES

The noisiest species are almost always the crickets and grasshoppers

(Orthoptera) occurring in all habitats, not easily seen, but heard non-stop, chirruping and singing from grass-tufts and bushes. And there are the dragonflies and damselflies (Odonata), especially the very large Emperor Dragonfly, which occurs all over the island and has proved very adaptable. Formerly it was most numerous in Mannez pond, until that became overgrown, since then the Emperor has spread widely in Alderney, often breeding in very small garden ponds.

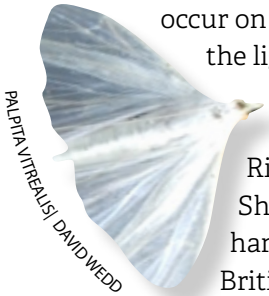

EMPEROR DRAGONFLY | DAVID WEDD

And then there are the Lepidoptera, Butterflies and Moths. We are proud of the statistic that there are apparently more species of moth to be found in our small island than in any equivalent area in the British Isles. Some of these are big and spectacular: for example, the Death's Head and Convolvulus Hawk-moths, seldom common in the UK, and the Rosy Underwing and Clifden

Nonpareil, very rare indeed in England but seen every year in Alderney.


FLAME BROCADE| DAVID WEDD

Other extreme UK rarities include the Flame Brocade, which frequently occur on our island, caught in the light traps in tens or twenties. The Dusky Scalloped Oak, Ringed Border, Pale Shoulder, Orache are hardly ever seen in the British Isles, as are some of the more spectacular micro-moths, especially the beautiful snow-white *Palpita vitrealis*, which I have twice bred in dozens in captivity. This August, for the first time, Alderney had a minor invasion of the very handsome Boxworm Moth, one of the largest micros.


PALPITA VITREALIS| DAVID WEDD

Butterflies are fewer in species, but astonishing in numbers.

2020 has been a good year, with the Vanessids, Red Admiral, Peacock, Small Tortoiseshell and Comma very abundant, while the Large Tortoiseshell, extinct in UK, has been surprisingly common in Alderney. At the height of summer and in early autumn Common Blue and Small Copper, Meadow Brown, Gatekeeper, Small Heath, Speckled Wood and Wall Brown have been numerous all over the island, as well as Large and Small Whites, while hedges and woodland have shown Purple and Green Hairstreaks. Alderney's 'special' butterfly, the Glanville Fritillary, has been less common than usual this year, but plenty have been recorded and no doubt next summer will see another mass emergence. Several species have been seen at unusual times – Clouded Yellow has been recorded regularly between May and August, but nobody was expecting the specimen that appeared on 17th November!


BOXWORM MOTH| JACK BUSH

By David Wedd


GRANVILLE FRITILLART | DAVID WEDD

Crab Wars

It only takes to upturn a small boulder on our intertidal rocky shore to reveal a glimpse of the rich diversity of plant and animal life found there.

The rocky shore is a challenging place to live, some areas being subject to strong tides, intense wave action, and long periods of exposure to the air at low tide which drives the distribution of species. The presence and abundance of each organism is dictated by their ability to survive in this dynamic environment (with some species being better adapted to tolerate certain conditions than others) and by their ability to compete with each other for food and space.

Mobile predators such as crabs are key players in the rocky shore system, particularly when in high abundances such as on Alderney's coastline. Here, rockpools become a battleground for resources. As new species begin to interact with 'native' populations, our crab communities will undoubtably change as some resources become monopolised by others. Impact could be felt in life across the rocky shore – it is therefore essential that we understand the communities present to help inform the impact of a possible alien invasion.

AWT staff and citizen scientists undertake bi-monthly surveys of crab populations on both Clonque Bay and Longis Bay to help inform how these communities are changing across Alderney.

Survey work aims to help our understanding of how new colonisers may alter our rocky shore systems,

looking at the distribution and number of each species present as well as the size and sex of each individual. Notably, three new crab species have been recently recorded in Alderney; the Asian Shore Crab, Montagu's Crab and Risso's Crab. Their future impact on our shores is uncertain, but as their population sizes increase, they may begin to out-compete our native crabs for resources such as food and space, altering assemblages present across the shore.


MONTAGU'S CRAB | PAUL NAYLOR


ASIAN SHORE CRAB | JONAS MORTELMANS


RISSO'S CRAB | IMARES

Asian Shore Crabs, are invasive, first recorded in Alderney in 2019 and by mid 2020, they had been recorded at both Clonque and Longis Bay. Asian Shore Crabs are likely to have arrived in Alderney after being transported in the bilge water of cargo ships in the UK and then drifting here in their free-floating larval stage.

Populations can become reproductively viable after only two years, meaning they are likely to become more abundant on our shores over the coming years with wide ecosystem impacts. Competing with native green crabs and disrupting widespread rocky shore systems, the

> Asian Shore Crab has been regarded by some experts as one of the top three alien species most likely to threaten native biodiversity in the next ten years.

Montagu's, or 'Furrowed' Crabs are another recent coloniser of our shores, being first noted in 2017. The distribution of Furrowed Crabs has changed in recent years, possibly in response to changes in ocean chemistry and sea temperatures. The impact on our native communities is unknown however their occurrence is increasing.

On another, equally worrying level, non-native crabs can bring new parasites to our native populations. Parasites affecting Edible Crabs, a commercially important species, have become noticeably more common over recent years. Parasites can prevent crabs from moulting and hence growing – their widespread presence in a population means a smaller proportion of young crabs are unable to grow and become mature.

> To understand population change, long term survey efforts are needed.

We know marine life is under threat globally however could our own marine life be subject to similar changes on a local scale? The observations made by the AWT could signpost these changes in real time.

By Jack Bush

EDIBLE CRAB | LINDA PITKIN

PORCELAIN CRAB | LORNA WEST

VELVET SWIMMING CRAB | AWT

BACKGROUND IMAGE: LONGIS BAY | LORNA WEST

Watch news

This year's Watch programme will be taken over by Lorna West, the new Outreach Officer for AWT. As a passionate wildlife conservationist and prior science teacher, Lorna is looking forward to sharing her love of the natural world with the local community. She hopes to work closely with both St Anne's Plays group and St Anne's school to engage Alderney's young people, getting them outdoors and into the wild, teaching them why nature matters and what actions they can do to protect it.

Lorna's first activity as Watch leader will be making bird feeders with the children at St Anne's Play group These feeders will then be placed in the School's allotment ready for the Big Garden Bird Watch. Bird feeders are easy to make and an excellent way to support your garden's wildlife during the winter. Check out our step by step guide below for how to make your own bird feeders.

Other upcoming events for this winter's Watch group include the Big Garden Bird Watch, happening at the end of January. The Big Channel Island Beach Clean, which will be held in February, and a Swish event for toddlers and children, which will take place later this month.

For more details on these events, make sure to follow us on Facebook or Instagram, or pop into the AWT's office on Victoria Street to talk to us directly. Similarly, if you would like to get involved please contact Lorna via headofoutreach@alderneywildlife.org.

Visiting a UK reserve

As a child I had the good fortune to grow up with Winnie-the-Pooh. I hid within the fringes of the Hundred Acre Wood (a lot less trees than you would think) and played Poohsticks on the rebuilt Pooh Bridge (you had to bring in your own sticks as there was not a twig to be found within half a mile). I had no idea the impact the forest would have on me as an adult, yet 44 years after I first arrived in the Ashdown Forest, and with over 20 years in conservation behind me, I think it's fair to say it's played its part.

Originally a deer hunting forest of the Norman conquerors, and still popular with the court of Henry V111, the forest's oak woodland became a vital part of building the British Navy, whilst its pockets of iron ore has provided income and tools for its residents since the iron age.

Today, a plateau of lowland heath, with sloping wooded valleys splaying out in all directions, the forest is one of the largest open areas in the South East of England, covering a total of 6500 acres, of which 2500 are heathland (2.5% of all remaining Heathland in Britain). The forest has been managed under an act of law since a challenge to the rights of local commoners by the local gentry was tested in Parliament in the 1880s. This makes it one of the first 'protected' wild areas under British Law and it has since been designated as both an Area of Outstanding Natural Beauty (AONB) and a Site of Special Scientific Interest (SSSI).

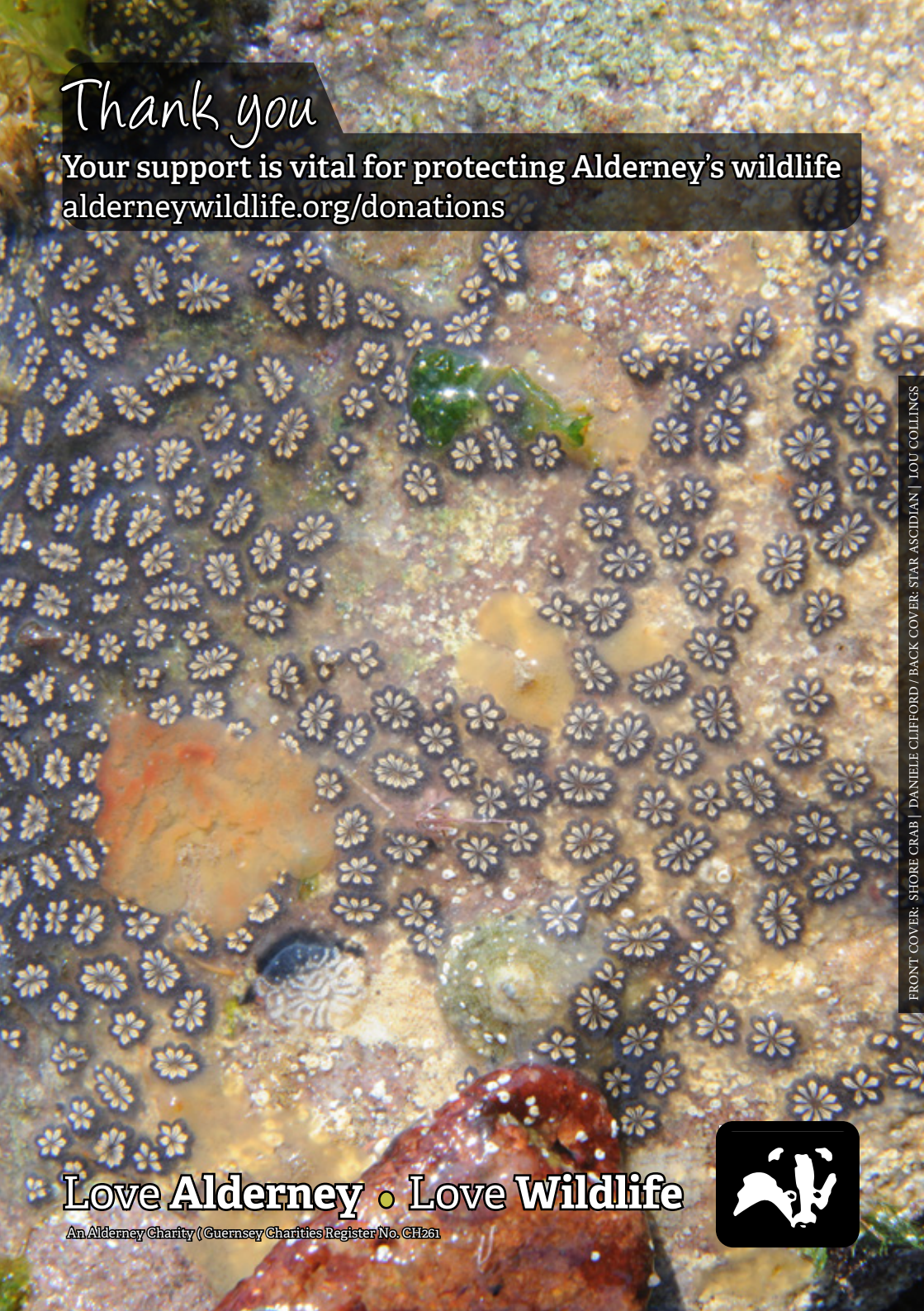
Today the Forest is managed by the Board of Conservators, originally set up in 1885, whilst the work of managing and conserving it falls to the Forest Rangers. Growing up I had the image of the Rangers as a type of cowboy, riding the range, fixing fences and herding escaped cattle. While this wasn't exactly the case, some rangers did patrol the bridleways in the 70s and 80s on horseback.

So if you are travelling through East Sussex and have the time (Covid allowing) can I recommend that you stop to explore the Forest. Here are a few personal favourites you might like to find:

- The Airman's Grave, site of a WWII Wellington Bomber's crash - this memorial was erected by families of those who lost their lives and when I was a child you could still find sections of wreckage.
- The secret waterfall, hidden away to the south west of the Hollies Car Park - in the winter we would find 6ft long icicles suspended down its face.
- Kings Standing – this stand of scots pine sits on top of the remains of a Neolithic site with earth banks still clearly visible amongst the trees.

By Roland Gauvain

BACKGROUND IMAGE: AN EARLY AUTUMN MORNING AMONGST THE TREES | ANDY BARTLETT



Thank you

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alderneywildlife.org/donations

FRONT COVER: SHORE CRAB | DANIELE CLIFFORD / BACK COVER: STAR ASCIDIAN | LOU COLLINGS

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