NATURA Far South Coast

Observing and understanding the flora and fauna of Bermagui/Wallaga Lake's forests and shorelines

Issue No. 6 ~ August 2023

The last month of winter has seen me enjoying the delights of both new and more familiar flora and fauna in and around my local area. I began the month with a rediscovery of rock pools and the wonders they hold when I decided to stop in at Bermagui's Blue Pool, ostensibly to do a bit of whale watching and check in on the resident seal colony. Although nary a whale was to be seen the fur seals were present in good numbers – at least 30 were lolly-gagging around in the water resting, grooming their snouts and whiskers and rocking and rolling with the currents. I found their gentle calisthenics and grace in the water completely mesmerising and spent at least half an hour watching and photographing them. Below are some of the photos I took …. as you can see, they were living their best seal lives and having a glorious and very relaxed time in the calm sea. Have you ever wondered why seals often have one flipper raised in the air when they're floating in the water? They're regulating their body temperature. Capillaries close to the surface of a seal's skin can absorb heat from the sun and the raised flipper allows them to maximise this absorption to keep their bodies warm in even the coldest waters.



Because the sea was so calm and the tide on the ebb I decided the conditions and timing were perfect to reacquaint myself with the Blue Pool, its surrounding rock pools and the marine wonders that both hold. What a treat was in store! As well as the usual and more commonly familiar inhabitants of such intertidal ecosystems, I encountered several new-to-me species, and a couple of them were absolutely extraordinary. Before I go into the specifics of some of these "finds" let's go back to basics with a bit of general information about rock pools.

LIFE IN A ROCK POOL

Because they exist along the edges of land and sea, life in a rock pool is intrinsically linked to the constant and rhythmic rise and fall of the tides. At high tide many of these pools are a part of the sea floor and its inhabitants exposed to marine predators, waves and strong water currents, but at low tide these same inhabitants are sealed off to coexist in a temporary, and often small, ecosystem. The organisms that live in this ever-changing environment must be able to cope with the problems of not one environment, but two. They are

pounded by waves and exposed to sunlight and extremes of temperature and salinity. They are flooded by sea water and exposed to drying air twice every 24 hours, and may be exposed to freshwater during rainfall or flood events. They also have to avoid being eaten by birds, molluscs and crabs at low tide, and by fish and other marine life at high tide. Despite these extreme and constantly changing conditions, rock pool ecosystems share similarities with life on terra firma. For example, there are ***forests*** here. These forests aren't made up of trees, grasses, shrubs and other plants but rather many different aquatic macroalgae species, more commonly known as seaweed. Seaweeds can live on hard surfaces where plants would not be able to survive because, instead of roots, they have special suckers called ***holdfasts*** which can cling to rocks, even in big seas.

Marine algae is generally classified into three major groups. **Green algae** such as sea lettuce or grass-like strap weed prefer shallow areas with plenty of light. **Brown algae** varies in colour from olive green to various shades of brown, and exists in a wide range of sizes and forms. **Red algae** can grow at greater depths along the coastline but in rock pools generally carpets the pool walls and floor with its filamentous stalks, often giving the rocks a distinctly pink hue. This matrix of seaweed is crucial to the overall health of a rock pool ecosystem because, just as trees do on land, the algae converts carbon dioxide to oxygen, thus ensuring that the pools remain oxygenated at low tide and able to support the animals living in them. These animals in their myriad forms also rely on the seaweed to provide not only food but shelter and protection from both predators and the harsh sunlight.



ABOVE - Three of the most commonly found seaweeds in our rock pools. From left to right - **Sea Lettuce**, an edible green algae with a worldwide distribution - **Neptune's Necklace**, a brown algae native to Australia and New Zealand. The "beads", known as ***pneumatocyts***, contain water to prevent desiccation, and gas which allows the plant to float to the surface of the water so that it can obtain more sunlight. The dimples on the surface of the beads are the plant's sex organs but the species can also reproduce asexually from broken or dislodged fragments. A fun fact about Neptune's Necklace – due to the species' high iodine content, Tasmanian children were at one time urged to "eat a bead a day" to keep goitres away - **Common Coralline,** a red algae that grows primarily around the rims of rock pools. This seaweed provides a habitat for small animals which feed on the microorganisms dwelling in its dense, fern-like tufts.

SEA STARS

Sea stars are marine invertebrates that have a central disc surrounded by typically 5, but sometimes more, arms. Although they are commonly referred to as starfish, these animals aren't fish at all but are ***echinoderms***, a term derived from the Ancient Greek "***ekhinos***" meaning "**spiny**" and "***derma***" meaning "**skin**". As a group,

sea stars and other echinoderms such as brittle stars, sea urchins, sand dollars, sea cucumbers and sea lilies are characterised by their radial symmetry and hard, often spiny covering. **A fun fact** - sea stars are sometimes referred to as "asteroids" because of their star-shaped bodies.

Although they look like simple creatures, sea stars are some of the most unusual animals you will encounter in a tidal habitat and have many weird and wonderful adaptions that make them quite unlike other animals. Did you know, for example, that sea stars pump sea water instead of blood through their bodies? Or that they have a light-sensitive eye at the tip of each arm that allows them to see? Or that they have two stomachs and can, most bizarrely, spit their primary stomach out through their mouth so it can engulf and digest prey outside of their body? Perhaps more commonly known, sea stars can regrow lost body parts. This regeneration is possible because each arm contains the same vital organs and body parts as all the others, thereby allowing the damaged sea star to survive long enough to grow replacement limbs. Remarkably, a whole new animal can grow from just a single amputated arm so long as a small part of the central disc remains attached. The growth of a new limb may take months, or even more than a year, to complete. For this reason it is very common to see a sea star with arms of varying lengths.

Because of their ability to regenerate limbs some sea star species can reproduce asexually either through a process called ***fission***, where the animal splits itself in half with each portion then regenerating the missing parts, or by ***autonomy*** where an arm is shed with part of the central disc attached. This single arm lives independently as a "comet", eventually growing not only a complete set of new arms but also all the vital organs needed for the sea star's long term survival. More commonly, sea stars reproduce sexually with males and females coming together to either mate or spawn. To maximise the rate of fertilization spawning events often see many animals congregating in one area so that thousands of eggs and sperm can be released simultaneously into the water. The resultant tiny embryos form a part of the ocean's zooplankton community and drift with the currents, feeding and growing until they develop into larvae that eventually settle on the sea floor to become juvenile sea stars. As resourceful and astonishing as a sea star's asexually reproductive abilities are, sexual reproduction is far more productive and results not only in a greater increase in populations but also promotes greater genetic diversity within a species.

The photo at left shows the underside of one of the arms belonging to an **Eleven-armed Sea Star (*Coscinasterias muricata*)** that I photographed in Bermagui's Blue Pool this month, and shows the central rows of sucker-tipped tube feet that all sea stars have beneath each of their arms. These tube feet are incredibly versatile and perform many functions in the day-to-day life of a sea star. These functions include not only enabling the animal to move but cling firmly to rocks and other hard surfaces, and to grasp and manipulate prey such as sea snails, crabs, shrimp, worms, corals, and even other sea stars. The tube feet are particularly useful when a sea star encounters a bivalve gastropod such as a mussel, scallop or clam. By working its tube feet in synch, a sea star can produce the enormous power and

adhesion needed to prise open the hinged shells so that its stomach can be pushed out through its mouth and inside the shell to consume the tasty gastropod. In order to accomplish all these things the tube feet are operated by hydraulic pressure. Water taken in through the ***madreporite***, a bony plate on the animal's aboral (upper) surface, is pumped into each foot to expand it, and out of the foot to contract it. When the animal is mobile the tube feet move in a wave with some attaching to a surface as others are released. To aid in adhesion, each tube foot is tipped with a sucker cup. These suckers excrete adhesives to give grip, and chemicals to release that grip. Because they can adhere to both porous and nonporous surfaces it is believed that sea stars use a combination of different adhesives rather than just a single fixative to grip various surfaces and prey.

Surprisingly, sea stars also use their tube feet to breathe. Because they don't have gills or lungs, sea stars rely on the intake of oxygen from the water that passes over and through their bodies. Oxygen in the sea water is taken in by specialised projections known ***papulae*** or skin gills that are located near the base of the spines on the body's upper surface but, because sea stars have a vascular system that pumps sea water rather than blood through the animal's body, oxygen can also be diffused from within the sea star's body. Because this internal water is pumped in and out of the tube feet, the feet facilitate the crucial exchange of gases that allow the sea star to breathe. The process is so efficient that the tube feet are sometimes referred to as "secondary gills". **Note** - if you look at the above photo of a sea star arm you can clearly see the white papulae encircling each spine.

A few miscellaneous sea star facts - as marine animals, sea stars can only live in salt water and, if taken out of the water for more than a few minutes, suffocate and die. In the wild, sea stars can live for up to 35 years but in aquariums rarely live longer than 8 or 10 years. This is because sea stars are highly sensitive to water quality and conditions, both of which are difficult to consistently control and maintain in an enclosed and artificial environment.

Here is another photo of the **Eleven-armed Sea Star (*Coscinasterias muricata*)** that I saw in Bermagui's Blue Pool. This sea star is one of the most beautiful …. and unexpected …. animals that I have ever encountered, and was instrumental in my current obsession with the residents of our local rock pools. As the common name suggests, this sea star usually has 11 arms, but the number of arms can vary from 7 to 14. Regardless of the number, the arms are often of differing lengths due to loss of limb or limbs either because of reproductive asexual autonomy, predation or injury. With a diameter of up to 50 cm, and weighing up to 3kg, this animal is the largest sea star found in southern Australia and the one shown … the largest of three I observed in the Blue Pool … was very close to that maximum size. These sea stars are not only impressively sized but are also beautifully coloured and patterned in shades of blue, grey, brown, cream, green, orange and beige. While younger individuals are usually blue-grey in colour

with broad brown bands on their upper surface, larger and more mature animals such as the one shown are often brightly coloured in shades of orange, green, blue, beige and cream. The upper surface of the Eleven-armed Sea Star is highly textured with longitudinal rows of short spines. In between the spines are small pincer-like protuberances called ***pedicellariae.*** These miniature jaws can move up and down to protect the sea star from predators and catch small prey animals. They also allow the animal to groom its skin to remove algae and other detritus (if you look at the photo of this animal's arm on page 3 you can see the clusters of small brown pedicellariae in between the spines). Eleven-armed Sea Stars are voracious carnivores and, although they will eat almost anything including carrion, are specialist feeders on bivalve molluscs such as mussels and scallops. In order to consume these tasty morsels, Eleven-armed Sea Stars use their tube feed to prise open the hinged shell of the mollusc before spitting out their primary ***cardiac stomach*** so it can be pushed inside the shell. Once inside the shell, the sack-like stomach engulfs the defenceless gastropod and releases strong digestive enzymes to break the meal down to a soupy slurry. With the prey reduced to a suitable consistency, the Eleven-armed Sea Star then sucks both the everted stomach and its contents back into its body so that the food can be transferred to the secondary ***pyloric stomach*** for final digestion and distribution of nutrients throughout the body. By feeding externally in this way, Eleven-armed Sea Stars and many other sea star species are able to consume prey much larger than their relatively small mouths would otherwise allow. Personally, I find this information both fascinating and horrifying. It certainly puts a whole new spin on the phrase "dining out"! A f**un fact (unless you are the animal being dined upon)** - The external digestion of prey by sea stars such as the Eleven-armed Sea star can take up to 10 hours, especially if the prey animal is large.

The most common sea star in our local intertidal zones, including at the Blue Pool, is the **Cushion Sea Star (*Meridiastra calcar*)**. Although 7 or 9- armed individuals can be found this sea star typically has eight short but distinct arms, and grows to maximum diameter of 5 to 10 cm. The Cushion Sea Star has a textured, rather scale-like upper surface and comes in an impressive array of bright colours ranging from yellows, oranges, reds and browns through to blues, purples, greens and greys. This wide variation in colour is genetically controlled and, as shown below, can vary greatly between individuals in the same rock pool. As variable in both colour and patterning as the upper surface is, the oral side is uniformly pale. Unlike the Eleven-armed Sea Star mentioned above which, as I observed, can move surprisingly fast, the Cushion Sea Star is a slow moving animal. Because it lacks the mobility needed to actively and aggressively hunt prey, the Cushion Sea Star feeds mainly on algae and detritus but will also consume sea snails, mussels and other slow moving animals. Like many sea stars they are also opportunistic feeders that will consume any decomposing organic matter, such as dead animals or fish, that they encounter. Because their mouths are small and because, like all sea stars, they don't have teeth, Cushion Sea Stars can evert their primary stomach to consume and digest large pieces of both algal and animal matter. The photo above shows Cushion Sea Stars in a rock pool on Bermagui's Moorhead Beach. **Here's a bit of fun for you** .. how nany sea stars can you see in this photo? (Hint – it's more than 15 and less than 25) And can you find the one that ***doesn't*** have 8 arms?

OTHER ROCK POOL RESIDENTS

Sea stars are not the only animals encountered in rock pool habits. Anemones, urchins, crabs, fish and a large variety of molluscs are just some of the many animals that share these intertidal habitats. As varied in appearance, diet and lifestyle as these animals are they all share one thing in common – an ability to survive in the ever-changing, complex world of a rock pool. Let's look at some of the creatures I have encountered this month at Bermagui's Blue Pool.

The **Brown-lined Paperbubble (*Hydatina physis*)** is one of the prettiest marine gastropods you will ever encounter and, although one of the less commonly seen sea snails, is well worth looking for. This sea snail lives in shallow water and can often be found in the weedy areas of rock pools where it feeds on bristle worms. The large foot has fleshy wing-like flaps that vary in colour from dark to pale pink but are always fringed with white or a translucent pale blue. Because of its colour and frilled mantle, this animal is often known as the Rose Petal Bubble Snail. The thin, fragile shell is white with transverse brown stripes and measures up to 57 mm in height and 46 mm in width. Because the shell is relatively small in comparison to the animal's size this sea snail cannot fully retract its body into the shell.

The **Mulberry Whelk (*Tenguella marginalba)*** is a species of sea snail in the Miricidae (Rock Snail) family. This very common intertidal animal is easily identifiable by its distinctive shell which has five rows of brown, roughly square nodules separated by pale grey areas that run in vertical and horizontal lines and give the shell a rather chequered and grid-like appearance. Despite its small size – as adults they rarely exceed 20 mm – the Mulberry Whelk is a ferocious predator that uses its sharp, rasp-like tongue, known as a ***radula***, to bore a hole through the shells of mussels, limpets, oysters and other molluscs and then cut up the animal inside. Once the prey has been dissected, the pieces are sucked up into the whelk's stomach for digestion.

Several species of limpet, including the **Scaly Limpet (*Scutellastra peronii*)** shown here, are commonly found in and around our intertidal rock pools. All limpets have flattened, cone-shaped shells and adhere strongly to rocks and other hard substrates using their muscular foot. This foothold is so powerful that it is almost impossible to dislodge a limpet from its resting place. Although it is difficult to believe of such a seemingly simple creature, each limpet creates a "home base" by using its shell to scour out a groove in which it can sit. To avoid drying out when "at home" the limpet traps a

bubble of water underneath its body so it can stay hydrated on even the hottest of days. None of these things, however, protect the poor limpet from the deadly, boring Mulberry Whelks with whom they share a habitat! Surprisingly, limpets are incredibly mobile and, at high tide, will travel more than 1 metre from their home base to feed on algae. After feeding, and as the tide recedes, each limpet returns to its designated "home" by following the scent of its mucous trail to retrace its …. steps?? When feeding, limpets use hundreds of tiny teeth to scrape the algae off rocks and towards their mouth. It has recently been discovered that these teeth are the world's strongest known biological structure with a tensile strength up to 5 times stronger than the previous holder of that record, spider silk. This strength is due not only to the material composition of the teeth but also their structure, and has great potential for the production of high performance materials. Because limpet teeth are able to avoid breakage and abrasive damage when dragged across hard rocky surfaces as they feed, the possibility of applications within the mining industry is particularly promising. Research continues as I write.

Chitons are marine molluscs that live on hard surfaces such as under rocks or in rock crevices. They are flattish animals with a dorsal shell that is comprised of 8 separate yet overlapping plates. These plates articulate well, and allow the animal to flex upward when moving across uneven surfaces, or even curl up into a ball if dislodged from a rock and under threat of predation. The shell plate is encircled by a skirt known as a ***girdle***. This girdle is the only visible part of the animal's body from the dorsal (upper) side. The majority of the body is a snail-like foot that can only be seen if the animal is viewed anteriorly. Like limpets, chitons are known to exhibit homing behaviours, journeying out to graze on algae and then returning to the exact same spot they previously inhabited. With 430 extinct species currently recognised, chitons are well known from fossil records dating back to the Cambrian period which lasted from 541 million to 485.4 million years ago. The chiton shown here is the **Snakeskin Chiton (*Sypharochiton pelliserpentis*)**. As the common name suggests, the surface of this animal's girdle has a pattern of overlapping scales that resemble snakeskin.

The Purple Sea Urchin (*Heliocidaris erythrogamma*) is the most frequently encountered urchin in Australia's temperate waters and in ideal conditions can form large groups known as "barrens". Despite its common name, the shell and spines of this animal can be mauve, red, green or white. Measuring up to 10 cm in diameter, the Purple Sea Urchin wedges itself in rock crevices to withstand the strong currents and heavy surf that often impacts its habitat. Like all urchins, the Purple Sea Urchin has a rather upside down anatomy with the mouth on the oral (lower) surface so it can graze on algae as it moves around, and an anus on the aboral (upper) side from which it can jettison any undigested particles. Because the gonads and roe of this animal are considered a delicacy, especially in Asian countries, humans are the biggest threat to this animal's survival. Thankfully, this endemic species is now largely protected with no collection permitted in designated Aquatic Reserves and bag limits imposed elsewhere.

The photo below shows two very different animals – **Cunjevoi (*Pyura praeputialis*)** and a **Spengler's Trumpet Snail (*Cabestana spengleri*)**. Although it looks quite plant-like Cunjevoi is a species of sea-squirt, a sac-like marine invertebrate that has a rounded or cylindrical body covered by a tough outer "tunic". Cunjevoi form dense mat-like colonies over rocks and grow to a height of 30 cm. During high tide, the Cunjevoi feeds by internally filtering plankton out of the water that it pumps in, through and out of its body via the 2 syphons on its upper surface. As the tide recedes the Cunjevoi retains water in its body to prevent dehydration, giving them the infamous ability to quirt a jet of water when squeezed or trodden on. Because one end of the body is always firmly attached to a rock or similar solid surface, and the animal completely immobile, Cunjevoi are easy targets for marine predators such as the Spengler's Trumpet Snail which is shown here feeding on Cunjevoi as the prey itself is also feeding.

Sea Anemones are a group of carnivorous marine invertebrates that are related to corals and jellyfish. These animals have a sack-like body topped by an oral disc comprised of a central, slit-shaped mouth surrounded by a ring of tentacles. The tentacles can be retracted inside the body or extended to catch passing prey such as fish, shrimp, crabs and plankton. When extended, the tentacles are triggered by the slightest touch to fire a harpoon-like filament into their victim so that a paralysing neurotoxin can be injected. The helpless prey is then guided into the mouth by the tentacles for consumption. The **Green Snakelock Anemone (*Aulactinia veratra*)** shown here is one of the most commonly seen anemones in our local rock pool habitats. With a diameter of up to 8 cm it is also the largest.

Although quite plain when compared to many other rock pool inhabitants I have included the **Black Nerite (*Nerita melananotragus*)** and **Zebra Top Snail (*Austrocochlea procata*)** here because whatever they lack in appearance they more than make up for in numbers. Indeed, it's almost impossible to visit an intertidal habitat and ***not*** see both of these animals. The **Black Nerite** likes to attach itself to sloped or vertical rock surfaces so it absorbs as little heat as possible from the sun. The common name "nerite" is derived from Nerites, a sea god in Greek mythology. As the common name suggests, the shell of the **Zebra Top Snail** has a black-and-white banded pattern although, as seen here, the ratio of black to white, and the width of the stripes, can vary greatly between individuals.

BARNACLES

I was not going to include a piece on barnacles in this issue but, as I've discovered, these common, easily recognisable and numerous little creatures are just too marvellously weird to omit. I have to be completely honest and say that as easily identifiable as they are, and as visually familiar as I am with them, I have never given barnacles much thought …. until now that is. Because I had never considered what they actually are I was rather taken aback to discover that barnacles are crustaceans, and as such are related to crabs, prawns, lobsters and yabbies. I found this very surprising because, unlike their actively mobile relatives, adult barnacles are sessile and are permanently affixed to a rocky surface from which they never move. I was also surprised to learn that barnacles construct their distinctive shells by secreting a type of quick-set cement. If, like me, you are surprised by these snippets of information ……. read on. There's more. Much more!

Barnacles can be found, often congregated in huge numbers, along rocky shorelines. Because the barnacles cannot move from the rocks to which they are attached the animals are completely dependent on tides to not only bring them food but also allow for the release of their aquatic larvae into the water so they can develop and grow. Despite this requirement, many barnacle species live high on the shore and may only be covered by water for a few hours each day. The rest of time they must endure the baking sun. To protect themselves from both the sun and predators, adult barnacles live inside a volcano-shaped covering made up of 4, 6 or 8 plates. The top entrance is covered by another 2 plates which can be closed tightly to stop the creature inside from drying out when exposed at low tide. At high tide, when the animal is covered by water, the 2 top plates open so that the 8 pairs of feathery legs, known as ***cirri***, can be emerge from the shell to gather plankton from the water and direct the food into the mouth.

At right - Rose-coloured Barnacles (*Tesseropora rosea*) at Bermagui's Blue Pool. These and many other barnacle species can be found in great numbers at mid-to-high-tide levels, and often show a preference for exposed rock surfaces where the wave action is moderate to strong. While seemingly and logically not optimal for the barnacles' survival, these locations ***do*** reduce the competition for real estate and food from other animals so perhaps there is some method to the apparent madness. Note the **Variegated Limpet (*Cellana tramosserica*)** at front left that is trying to muscle its way into the Rose-coloured Barnacles' space.

Most barnacles are ***hermaphroditic***, meaning that each animal has both male and female reproductive organs but, although theoretically possible, self- fertilization is rare in barnacles. Because their sessile lifestyle makes it impossible for barnacles to leave their shells to mate, sexual reproduction is difficult. To facilitate genetic transfer between isolated individuals, barnacles have extraordinarily long penises. In fact, barnacles probably have the largest penis to body size ratio of the entire animal kingdom with their penis up to eight times their body length …. is it just me or do you all now have disturbing mental images flashing through your minds??? Slightly more reassuringly, barnacles can also reproduce through a method called ***spermcasting*** where sperm is released into the water by one barnacle and picked up by another to fertilise its eggs. When ready to reproduce, an adult barnacle uncoils its long, tubular penis and extends it out through its top 2 plates to search

for a nearby receptive neighbour (more horror!). When the sperm is transferred, the fertilised eggs are brooded within the shell of the receiver adult until they develop into ***nauplius*** (larval crustaceans). A single adult barnacle may release more than 10,000 of these larvae into the water at a time. The tiny nauplius have antennae, an eye spot and jointed appendages and go through six moults as they grow and develop, eventually reaching the ***cyprid*** larvae stage. Cyprid larvae have larger antennae and more appendages than nauplius larvae, and do not feed. Instead, they use chemical and touch detectors to recognise adults of their own species and find suitable rocky environments near those adults on which to settle. When a suitable location is selected, the cyprid uses special cement glands in its antennae to attach its head to a rock before moulting and rotating its body so its legs are facing upwards. By secreting more cement, the cyprid permanently attaches itself in its final chosen position and constructs the carapace around which it will, as a young barnacle, secrete its fixed shell plate walls and moveable top plates.

Below - The animals that we typically identify as a barnacle, such as the **Rose-coloured Barnacles (*Tesseropora rosea*)** shown here, are known as "acorn barnacles" because of their symmetrical, cone-shaped appearance. Acorn barnacles are always attached to rocks or other fixed objects and many species, including the Rose-coloured Barnacle, can resist being desiccated by the sun for long periods of times, sometimes even weeks. They do this by tightly closely their two top plates. Acorn barnacles can live for up to 10 years. Note the **Little Blue Periwinkles (*Austrolittorina unifasciata*)** that are sharing this exposed seaward-facing rock ledge with the barnacles. These tiny periwinkles live in splash and high intertidal zones and, as here, are often found in clusters.

A fun fact - it is thought that the word "barnacle" is derived from the 13th century "bernekke" and originally referred to a species of goose. Because the goose spent its breeding season in the Arctic, and because the full life cycles of both barnacles and the goose was unknown at the time, a folktale emerged that the geese hatched from eggs laid by the barnacles. The name "barnacle" was not applied strictly to the invertebrate animal until the 1580s.

MASKED LAPWINGS

As most of you are now fully aware, the Masked Lapwings aka "plovers" are now nesting. While I am absolutely delighted to, yet again, have these birds nesting in my yard I know many of you are less than thrilled to be swooped and yelled at every time you venture outside to do a spot of gardening or go for a walk through our local reserve but bear this in mind. If you've ever been a parent (or even if you haven't) you will know that raising kids is a tough gig. Now imagine that you're about the size of football, that you and your children taste like what a fox or cat would call lunch, and that your home is nothing more than a patch of ground in the middle of a field and exposed to wind, rain and all manner of other unpleasantries. This is the life of Masked Lapwings parents, so it's little wonder they work so hard … and so vocally … to protect both their nests and their tiny and endearingly adorable fluffy chicks. Please, for everyone's … and every bird's … sake, try to exercise a little care and consideration over the next few months. Mind where you step and, if a parent bird is walking in front of you, follow it because it is leading you ***away*** from its vulnerable and hard-to-see chicks. As much as none of us enjoy being screamed and swooped at, I can assure you it **WILL** stop.

Until next month, *Deb* **deb_taylor142@hotmail.com**