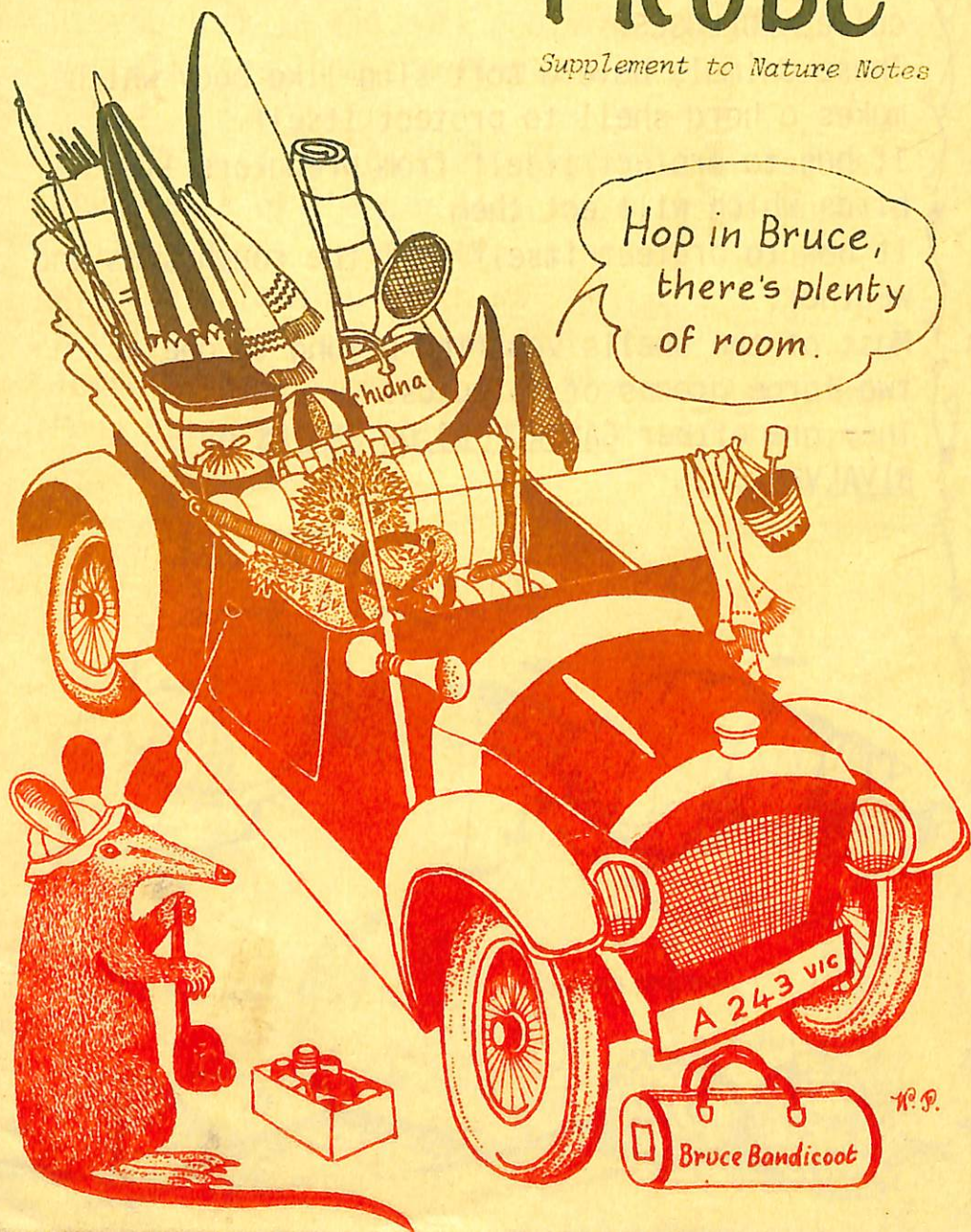


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1984

NATURE PROBE

Supplement to Nature Notes



SHELLS

What are the shells that you find at the beach? They are the hard remains of a group of animals called MOLLUSCS.

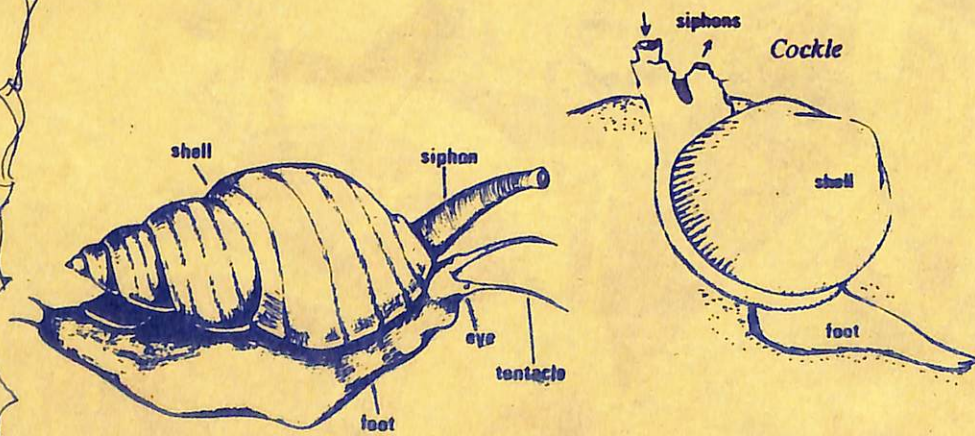
These animals have a soft slug-like body which makes a hard shell to protect itself.

It has to protect itself from predators like birds which will eat them.

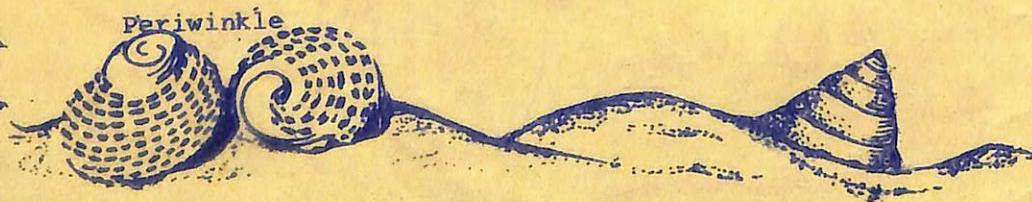
It has to protect itself from the rough seas and weather.

Most of the shells you find belong to one of two large groups of molluscs.

They are either GASTROPODS OR SNAILS or BIVALVES.



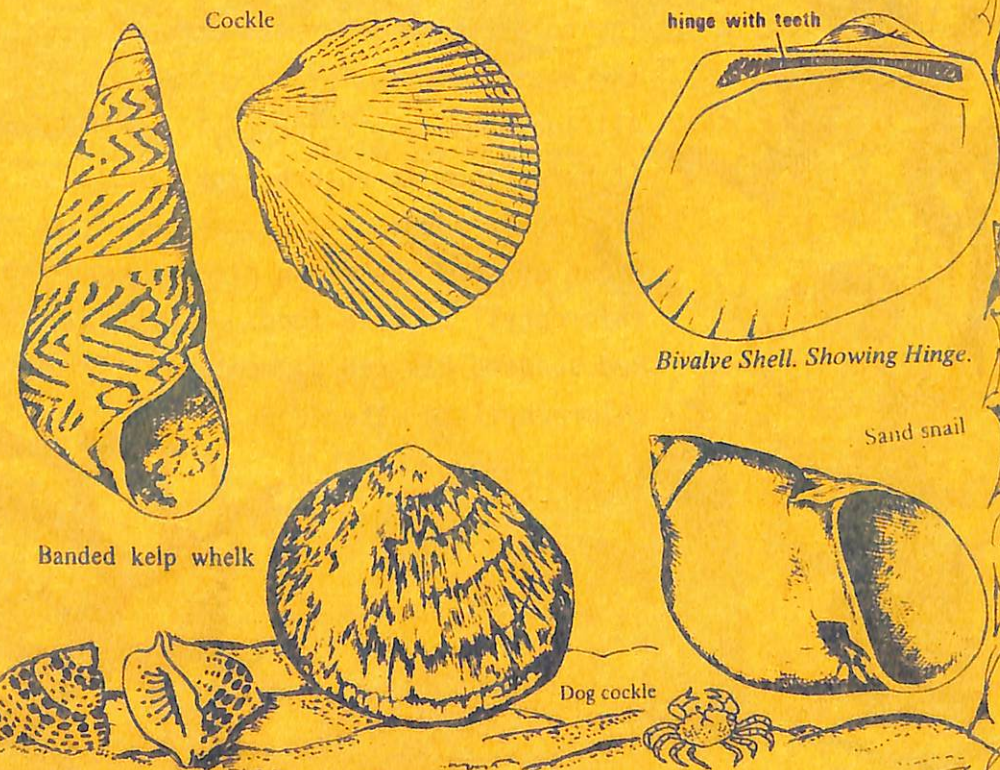
Shell with Animal.



Periwinkle

GASTROPODS or (snails or univalves)
Most of these have a single coiled shell.
The body of the animal has a head with tentacles and a rasping tongue.
If you look in the rock pools at low tide you will see them crawling around.

BIVALVES, clams, cockles, oysters and mussels.
The shells of these molluscs are in two parts called valves. They are joined by a hinge with interlocking teeth.
Bivalves are found attached to rocks and jetty piles. They also live in sand and mud.
Many bivalves use their muscular foot to burrow.



Cockle

hinge with teeth

Bivalve Shell. Showing Hinge.

Sand snail

Banded kelp whelk

Dog cockle

SEAWEEDS

CODIUM

BLACKFISH
WEED

Seaweeds are Algae. They are simple plants that live in water. They have no roots, stem or leaves. They have a flat body called a thallus. Seaweed is sometimes joined to rocks by a HOLDFAST. A holdfast looks like a root but it is only an anchor. The seaweed takes in food and air from the water. This is taken in all over the thallus.

The colour of the seaweed depends on the depth it grows at.

All seaweeds have chlorophyll. It helps them to absorb light to make their food.

Brown seaweed has brown pigment and chlorophyll to make food.

Red seaweed has red pigment and chlorophyll to make food.

KELP

IRISH MOSS

HOLDFAST

GROW

GROW

GROW

VERY,
VERY,

EASY SEEDS ARE:
FRENCH BEANS & SILVERBEET

VERY EASY
SEEDLINGS

TOMATO
OR SILVERBEET.

GROW SOMETHING THIS
SUMMER.

GET MUM OR DAD TO
HELP.

PLANT A TOMATO
SEEDLING.

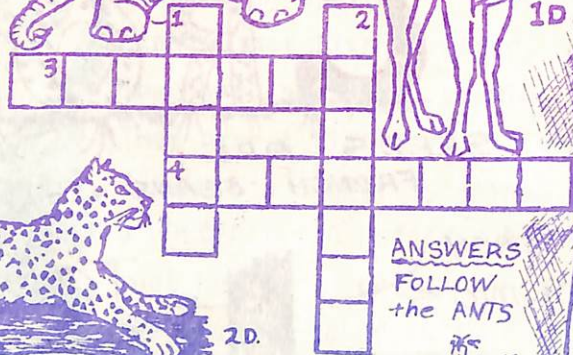
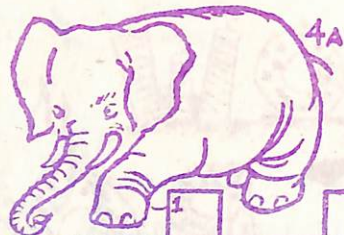
IF A TALL
VARIETY
TIE IT TO
A STAKE.

DON'T
FORGET
TO
WATER
IT.

Why
are all those
ducks on
the pitch
Bruce?

Ernie, they're just
waiting for you
to bat!

Hey Diddle Diddle, Take out the Middle (Page).



ANSWERS
FOLLOW
the ANTS



SPOT the GOOF!



Ernie and I
are so ashamed.
We made a very
bad "SAFETY
MISTAKE."
CAN YOU FIND IT IN
THE MAGAZINE?

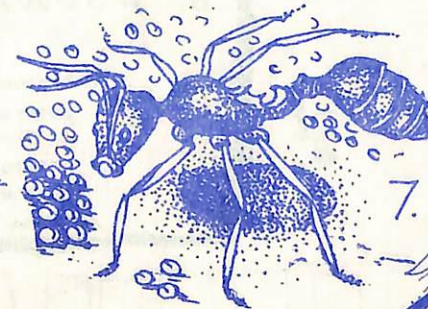
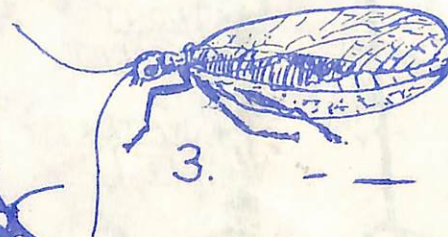
WHEN WE WERE
BOATING WE FORGOT
TO PUT OUR LIFE JACKETS
ON. PLEASE WEAR YOUR SAFE!
LIFEJACKETS.

2D. LEOPARD 4A. ELEPHANT

1D. CAMEL 3A. GIRAFFE

NAME the INSECTS

HERE ARE the NAMES.
MATCH THEM WITH
THE INSECTS.



LACEWING.

FLY

CRICKET

GRASSHOPPER

BLACK BEETLE

MOTH

ANT

DRAGONFLY.

ANSWERS

FLY 1
CRICKET 2
LACEWING 3
GRASSHOPPER 4
BLACK BEETLE 5
MOTH 6
ANT 7
DRAGONFLY 8

PUZZLES

The birds are hidden in the sentences.
Can you find them?

1. We do very careful work. (dove)
2. Most rich people have nice things. (- - - - -)
3. The bib is on the baby. (- - - -)
4. I saw my father on television. (- - - - -)
5. Puffing Billy is a train. (- - - - -)
6. We must be polite. (- - -)
7. The nights are growing shorter. (- - -)
8. The three bears had a bowl each. (- - -)
9. Sometimes dogs wander away. (- - - - -)
10. Dad rakes up the grass. (- - - - -)

- ANSWERS
10. drake
 9. swan
 8. owl
 7. hen
 6. emu
 5. puffin
 4. heron
 3. ibis
 2. ostrich

I'm
hiding
here.
It's safer

MIXED UP BIRDS

1.

azine

□ □ □ □ □ □

1. SAWPRRO
2. SHRTHU
3. NIBRO
4. LOW
5. RRAPOT
6. WSOWALL

2.

wh m

□ □ □ □ □ □ □ □ □ □ □ □

1. SPARROW
2. THRUSH
3. ROBIN
4. OWL
5. PARROT
6. SWALLOW

1. MAGPIE 2. MISTLETOE BIRD



I've checked everything
Bruce, and
it still won't
move!



GREEN SEAWEED grows very quickly.
Most green seaweeds float on the surface
or grow at normal low tide level.

SEA LETTUCE

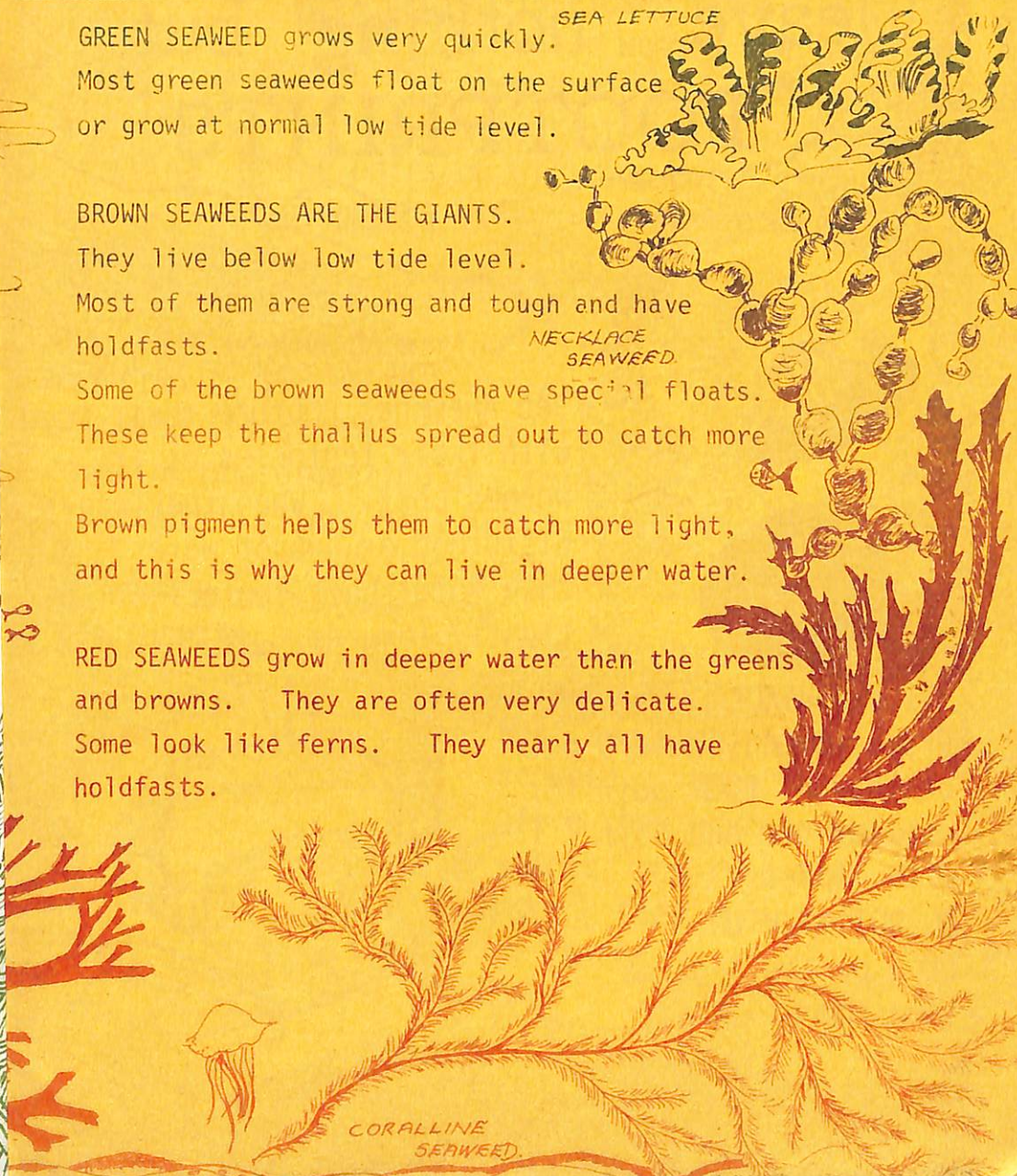
BROWN SEAWEEDS ARE THE GIANTS.
They live below low tide level.
Most of them are strong and tough and have
holdfasts.
Some of the brown seaweeds have special floats.
These keep the thallus spread out to catch more
light.

NECKLACE
SEAWEED

Brown pigment helps them to catch more light,
and this is why they can live in deeper water.

RED SEAWEEDS grow in deeper water than the greens
and browns. They are often very delicate.
Some look like ferns. They nearly all have
holdfasts.

CORALLINE
SEAWEED

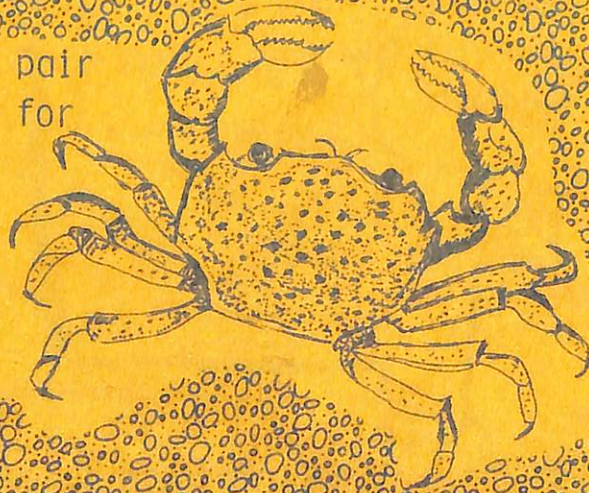


Take nothing but PHOTOGRAPHS leave nothing but FOOTPRINTS



Sea Anemones capture their food with their tentacles as it washes past. When they are disturbed or out of water they fold their tentacles tightly inwards.

Crabs usually have 5 pair of legs. Four pair for walking and one pair with nippers.
DO NOT pick up a crab by the legs as they can break off.



An adult barnacle never moves from his rock or pier. He uses his 6 pairs of legs to catch food. His shell is closed tightly until water washes over him. He then opens the 2 doors at the top and puts out his hairy legs. The hairs on his legs catch tiny pieces of animal life as it floats by.

The hole on the underside of the starfish is its mouth. It eats by bringing its stomach out of its mouth, covering and digesting the food, and its stomach slides back inside.



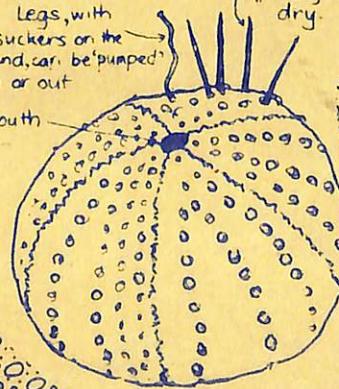
Hydraulic
Legs
(worked by
water)

SEA URCHINS.

Legs, with
suckers on the
end, can be pumped
in or out

Spikes which break
off easily when
dry

Mouth



Some Sea Urchins are poisonous. Take care. Most sea urchins eat seaweed. When they are alive they have moveable spines, and tube like waving feet that suck hold of things.

Pacific Gull



The Pacific Gull is a scavenger.

It cleans the beaches of dead and dying sea animals and birds.

But, they do not scavenge from humans like their cousin the Silver Gull.

Seabirds are able to drink seawater.

Salt builds up in special glands above each eye, and is then released out of the nostrils.

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