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HOW DO ANIMALS COMMUNICATE?

WALLY'S
PLACE

Yes Wilbur, I'd
love to come
over for afternoon
tea on Tuesday!

read this month's
issue to find out...

NATURE NOTES

ED'S PAGE—

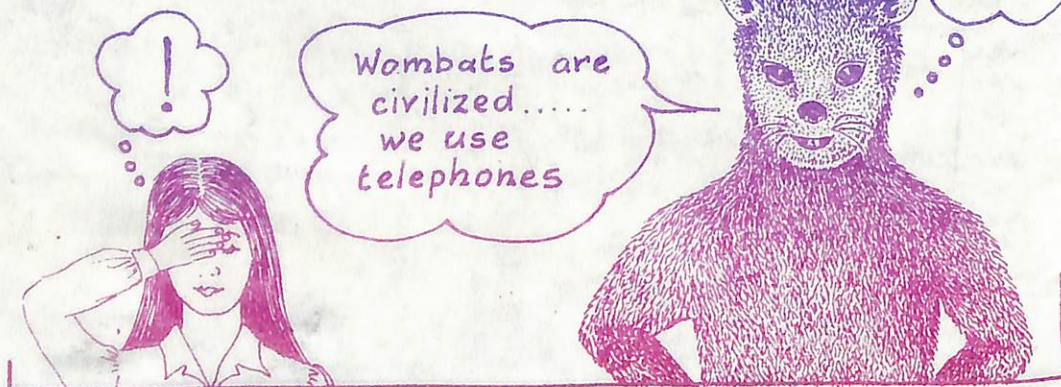
Hi there!

This month at Nature Notes, we're looking at (Yes, you've guessed it) 'How Animals Communicate'. It's really interesting to find out how each different animal has a different way of 'talking' to their mates (or enemies!) We've only written about a few ways animals communicate here, how many OTHER ways can you find out about?

Happy Reading
Mandy Carmichael
Editor.

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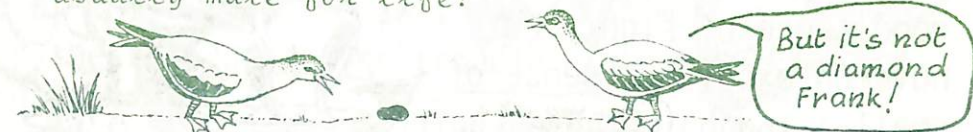


GANNETS

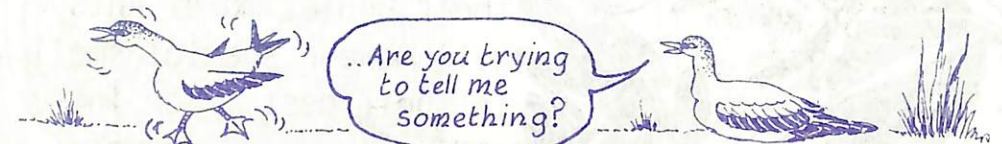
Many birds communicate by using certain displays or rituals which mean something. Here, we're going to have a quick look at the Gannet, and the way in which this bird communicates with actions rather than words!

The Gannet is a fairly common bird, found around a major part of the Australian coast line. There are nine species or types of Gannet.

When a white Gannet decides on a mate, he will offer her a stone, and place it at her feet. If the female picks it up, it means he has been accepted. Pretty neat eh, considering Gannets usually mate for life!



When a Gannet is about to take off somewhere, he tells his partner by stamping his feet, and waving his outstretched head around. Then he faces the least crowded direction, flaps his wings and flies off, in search of food or whatever.



Some types of Gannets offer their partner some twigs, that could be used to make a nest. This is meant to mean 'I'm very trustworthy'.

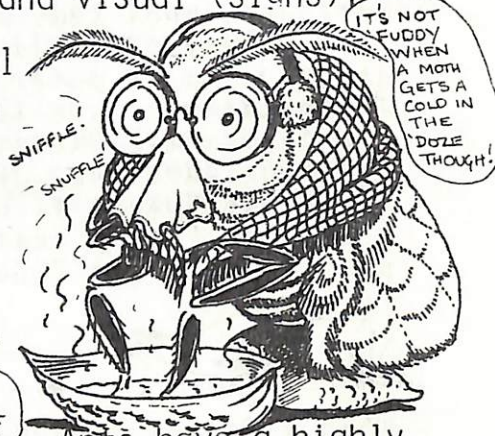


What are some other 'displays' or 'rituals' animals use? Why do birds seem to use displays a lot? What are other ways in which birds can communicate?

ANIMAL TALK

There are three ways of communicating used by many animals and insects. They are acoustic (sounds) chemical (smells) and visual (signs).

Female moths have a special smell when they are flying around, so the male moth knows it is a female. The moths do not have a very good sense of sight, but have an excellent sense of smell.

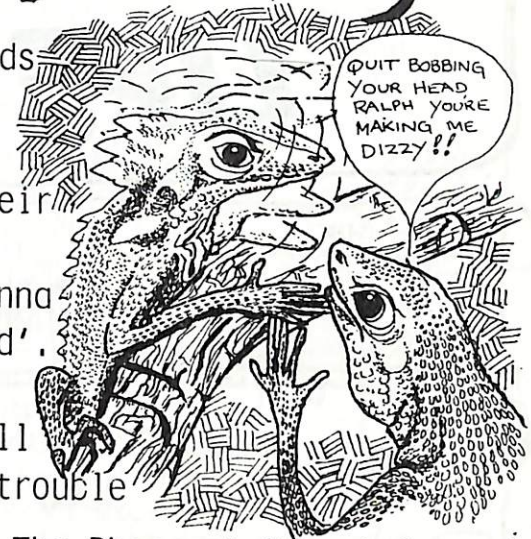


Ants have a highly developed way of communicating with the smells their bodies make. Ants will make a special smell in their nest if an intruder comes in, to warn the other ants. They have a different smell to tell their fellow

workers the right trail back to the nest when they are out finding food. All the ants stick to the trail, so as they don't get lost. Some types of birds rub ants into their feathers, because they find the smell protects them from lice and other pests.

EEEEEEEEEEK! (SQUEAK, SMELL & SIGNAL)

Lizards will bob their heads up and down if they sense danger. Goannas will stand on their hind legs with their tails lifted, to indicate that another lizard or goanna is intruding on their 'land'. Birds will flash different parts of their wings to tell others there is danger or trouble around.



The Pheasant Coucal (an Australian bird) makes different noises to communicate with its flock or young. It makes a 'nah-oo' noise if it is frightened, and a 'glob-glob' noise when it is in breeding season. As you can tell if you say the noises out loud, they are very different. The young chicks know instinctively to hide if they hear the 'nah-oo' noise.

Some animals and insects use only one of these ways of communicating, while others use a combination of these ways. Do you know any animals that use these ways? What ways do humans use to communicate? Are they different to animals? How?

IT'S A DOG'S LIFE!



Your pet dog was once a wild creature who roamed the countryside in a pack, searching for food. He looked after the sick or injured members of the pack, and protected them from intruders.



Today, dogs have been DOMESTICATED, and live mainly with humans. They still use many of the skills that they learnt as wild dogs, centuries ago.



Can you name some types of dogs that are wild even today?

As a wild dog, your pet Fido would have had a leader to follow, and would have been expected to behave in certain ways. Now Fido's a 'pet, you're his leader, and he behaves in ways you expect him to, as well as ways that he has INHERITED from his wild dog ancestors.



Tail wagging, licking, pawing and rolling are all INHERITED traits. These are ways of communicating that wild dogs used, and your Fido still uses today, to talk to you. Do you know what these actions mean? How about if your dog growls or barks; as an owner, you can often tell if your dog is 'serious' or not.



In packs, dogs used to get really stirred up before they went on a hunt. They ran around and around in circles, yapping and bowing to each other and their leader. The leader would start this flurry of excitement off, to psyche the pack up. Your Fido does the same actions when you get ready to take him out, or go for a walk. It's the closest he gets to 'hunting' in the suburbs (I hope). When you're next out taking Fido for a walk, watch what he does. Do any of his actions seem to be automatic?



There are other ways your dog communicates with you. What are they?

Have you ever seen your dog with his CANINE friends?
Does he behave differently than when he's with you?

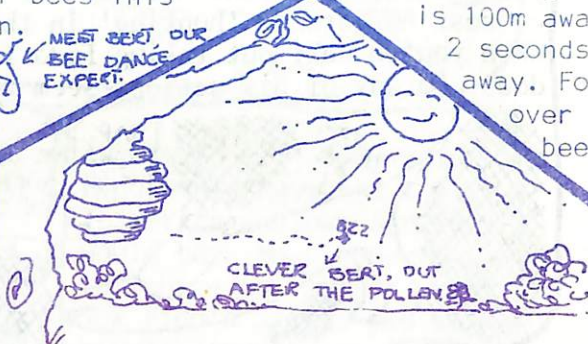
Find out what all the tricky words in CAPITALS mean.

- MC

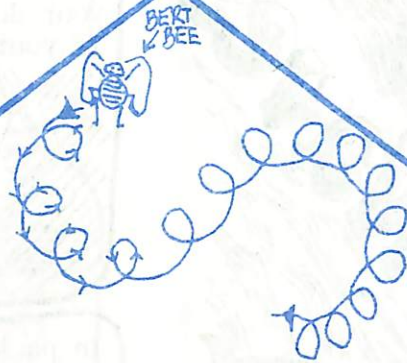
BUSY BEES ..how bees communicate.....

BEES have special dances to show their workers where pollen (needed to make honey) can be found. The type of dance done by the bee tells you how far away and where the pollen is. The sound that the bee makes when it is doing the dance tells the other bees the type of pollen it is. The bee's dance also tells the color, perfume and shape of the plant with the pollen, but scientists and naturalists haven't worked out which part of the dance tells the other bees this information.

BZZ BZZ BZZ
MEET BERT OUR BEE DANCE EXPERT.



The direction of the pollen is told in the dance by the place where the bee does the dance. It depends on the position of the sun and the hive. Bees are clever enough to know just where the pollen is by this method.



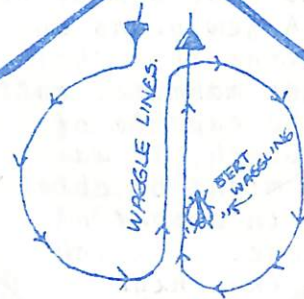
This dance is called the 'round dance' (because the bee goes around and around). It means there is a good store of pollen nearby. If the dance takes $1\frac{1}{2}$ seconds, the pollen is 100m away. If it takes 2 seconds, it is 200m away. For distances over 1.5km, bees do



Does he mean the disco is on tonight?!



the 'waggle dance'. This dance shows the direction of the food a long way away. The bee waggles its body up or down the centre line to show the exact distance away.



THIS IS A WOMBAT DRESSED UP AS A BEE.



(You have to be in everything, eh Wally!)

8. inherited. 9. hunted.

1. chemical 2. clicks 3. distance 4. Waggle 5. echo 6. goanna 7. direction

What are all these words doing on my page?

CAN DOLPHINS TALK?

Well, they don't exactly whisper in the waves, but they do have a wide vocabulary of sounds. A few years ago came startling suggestions that these warm-blooded marine mammals, called CETACEANS, might be capable of imitating human speech. It was thought that they might be able to talk to people in a sort of Donald Duck language, in which words are gabbled in a high pitch. They talk in "whistles" with a few "grunts", "clicks" and "cracks".

One of the most remarkable achievements of the dolphins and all the toothed whales is the development of the ECHO-LOCATION SYSTEM. This is for tracking fast moving schools of fish.

When hunting, the dolphin emits a stream of high-pitched sounds, which travel ahead through the water. Should the sound waves strike fish, echoes are reflected to the dolphin. The dolphin is able to tell not only the direction and distance of the fish, but also the kind of fish!

HOW CAN THIS BE ???

A Tuna school!
Let's go !!

Research in Hawaii shows that the dolphin sends out rapid bursts of "white noise", or sounds of mixed frequencies. The echo produced by these mixed frequencies provide the dolphin with information about the texture of the skin of the object, helping it decide whether to chase the fish.

Dolphins and toothed whales also use their echo-location powers to avoid crashing into shorelines, reefs and underwater obstacles. Collisions would be fatal! The bottle-nosed dolphin navigates at high speed, at night as well as day, by sending out a stream of clicking sounds, at the rate of up to 400 per second.

DO THEY TALK TO
TO ONE ANOTHER ?

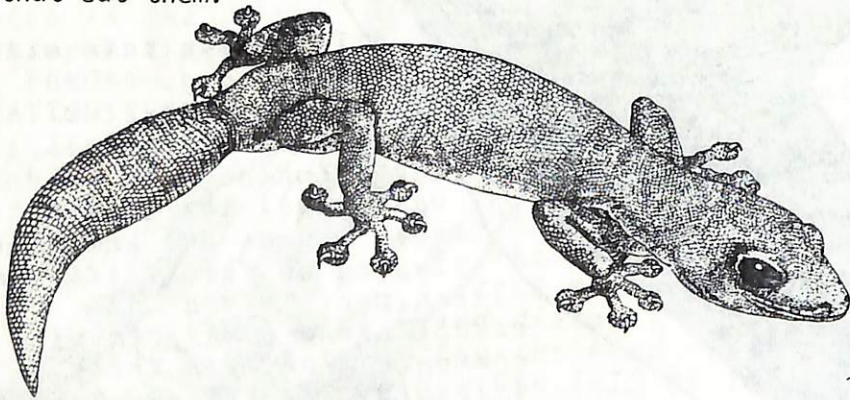
To communicate with their young, or to maintain contact with others in the school, the dolphins make a variety of whistles. These sounds are now being studied by scientists, in experiments aimed at establishing some form of communication with these friendly, intelligent animals.

LIBRARY RESEARCH:

See if you can find out about the dolphin called "Opo", and also the famous dolphin "Pelorous Jack".

RAVING

Some lizards and snakes will hiss when approached. This is caused by air being pushed out of the lungs, and is not really a voice. So, do reptiles talk to each other? The only reptiles that have voices are the geckos, legless lizards and crocodiles. Australian geckos are not as noisy as many foreign species. The Barking Gecko of eastern Australia is one of the finest examples of the use of vocal noises. When confronted by an enemy, these lizards raise their inflated bodies high off the ground on long spindly legs and sway slowly backwards and forwards. Without warning they lunge forward, emitting a loud wheezing bark - enough to frighten off most animals that eat them.

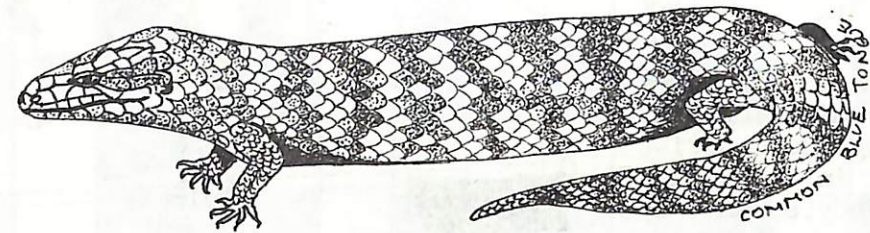


The Bluetongue lizards will also inflate themselves with air to make them appear larger to an enemy and open their mouths to display the bright blue tongue to an enemy. This is a warning display, where the lizard gets its message across, but doesn't use a voice.

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REPTILES

But how do reptiles communicate with each other when most of them don't have voices? They use combinations of movements, colors and patterns so they know what another reptile is doing. Dragon lizards have complicated movements such as head waving and bobbing and arm waving to get their message across. They can also change their color according to their mood. A Bearded dragon that is angry or upset can change from light yellow to dark brown. This indicates its mood to other Bearded dragons.

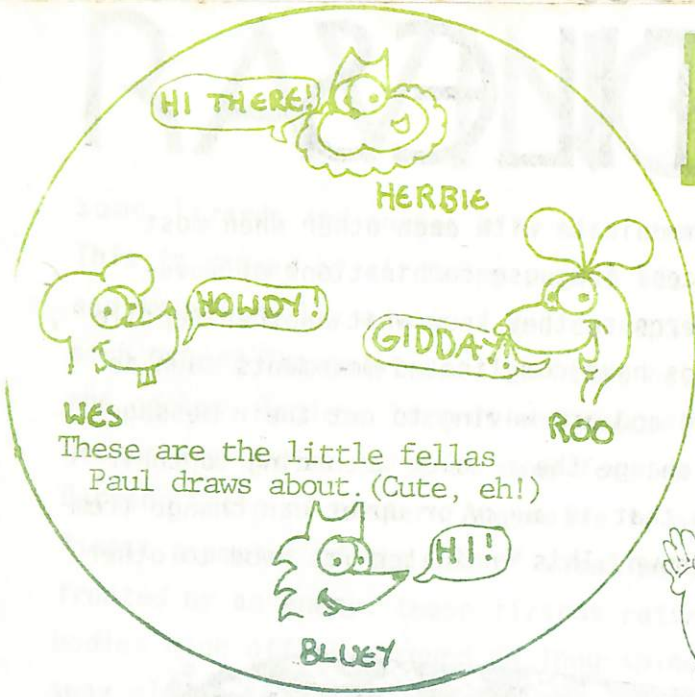


Some lizards such as skinks and dragons will have very bright colors at breeding time, usually in the spring. Only the males take on breeding colors. This is another form of communication used by the reptiles.



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S. BARDEAST.

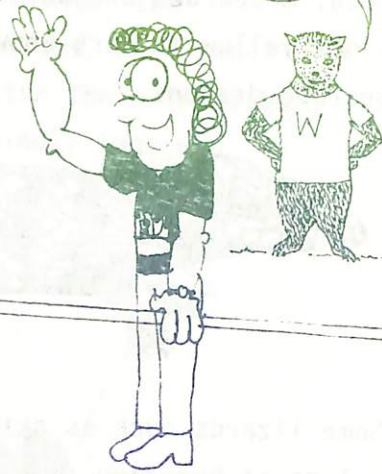


WES
These are the little fellas
Paul draws about. (Cute, eh!)



Paul's Page.

What's all this
then, Ed?



This is Paul, by the way!

We'd like to introduce
you to Paul Bridgeman,
a budding young artist
from out in the wilds
of Warrandyte, who is
going to draw for us on
a regular basis

We hope YOU enjoy Paul's
cartoons as much as we
do. Here's one to start
you off.....



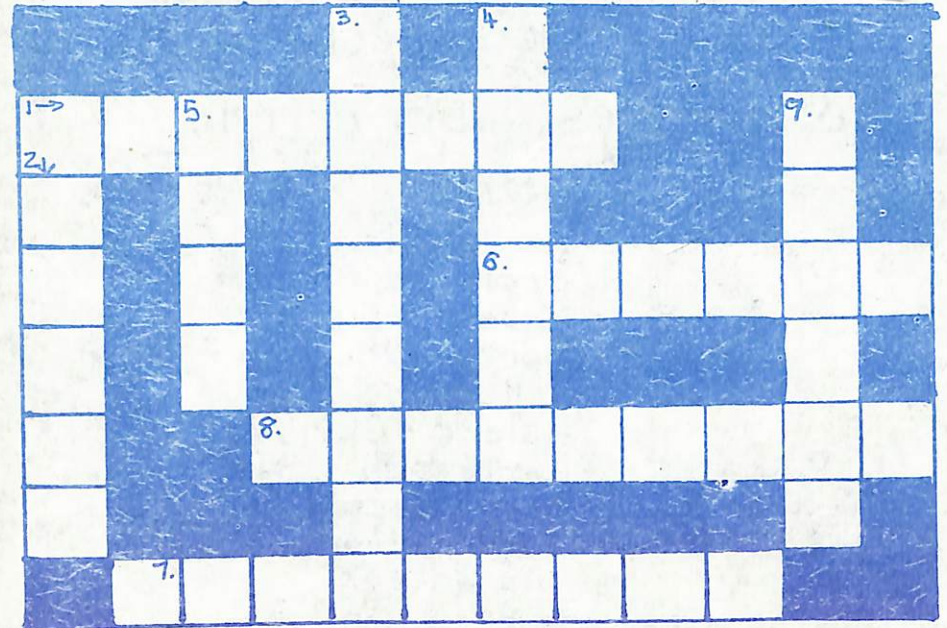
— Maybe we should blow up Warrandyte, eh Wally!.....

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COMMUNICATION CWIZ.



"HEY ED, I'VE
FINISHED THAT
HEADING FOR
YOU!"



GLUES (-OR HOW WELL DID YOU READ N.N?)

① Name for a smell given off by an animal to communicate. ② Noises a dolphin can make. ③ The bee's dance tells you this ④ Name of a bee's dance. ⑤ Dolphins use an — location system. ⑥ This lizard is known to stand on its hind legs. ⑦ Dolphins use their communication system to find out the — a fish is swimming in. ⑧ A trait that isn't learnt, but is natural is called —. ⑨ Wild dogs — for their food in packs.

ANSWERS: You'll have to read NN. Even MORE carefully to find out where the answers are hidden!!

Let's hope she's learnt to number pages eh?

PAGE
14.

WINNERS!

Congratulations
to all these winners of our
coloring competition.

Your prizes will be arriving
soon!



Angela Tan
Bronwyn Capper
Kate Bartlett
Melinda Dunston
Kelli-Anne Carey
Melena + Chris Fazio
Emily Bull
Troy Jones
Kara Botton
Tim Watson

