



# SURVIVAL THROUGH BATTLE AND BONDING

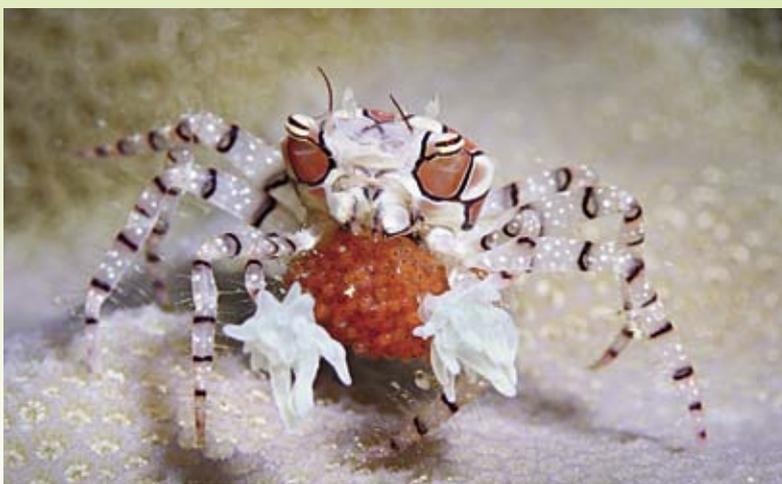
The English poet Alfred Tennyson wrote of “nature, red in tooth and claw”, and it is true that the natural world can be a bloody and violent place. One way for animals to survive is the evolution (= development) of natural weapons. Over centuries, nature has invented some serious defensive technology.

Paul Farrington-Douglas (UK)



## Spikes, Spikes and More Spikes

The **echidna**'s<sup>6</sup> main defence is a thick jacket of 4,000 strong, sharp **spikes**. If it is attacked, the echidna digs into the ground so only its spikes stick out. Bonus fact: the echidna is the closest relative of the **platypus**<sup>7</sup> and, like the platypus, it lays eggs.



## Cheap Weapons

War is exhausting. It takes a lot of energy to grow **horns** and **spikes**, or to make poisons. Boxer crabs have found an easier option: use someone else's weapons. These crabs pick up **stinging anemones**<sup>1</sup> and use them as poisonous boxing gloves.

## Suicide Bombers

Possibly the strangest defence of all is seen in the exploding ant. The bodies of the soldier ants (= large ants who fight for their colony) of this species contain a bag filled with a secret chemical weapon. The ant does not bite or fight an attacker; it simply explodes and covers the enemy in a strong, sticky acid.



## Chemical Warfare

There are many poisonous animals. Some, like snakes, have a venomous (= with poisonous liquid) bite. Other animals are poisonous to eat, or even to touch. The greenhouse **millipede**<sup>3</sup> takes things even further. If it is threatened, it releases **hydrogen cyanide gas**<sup>4</sup>, the same thing used in Nazi **extermination camps**<sup>5</sup> during the Second World War.



## Pretending to Be Someone Else

Weapons aren't the only way that animals can defend themselves. **Disguises**<sup>8</sup> are also a popular choice. Sometimes that means pretending to be a leaf, a stone or a stick. The bird-dropping spider for example, pretends to be a bit of bird **poop**<sup>9</sup>. At other times, a disguise can mean pretending to be bigger or more dangerous than you are. There are flies that look like wasps, and a **caterpillar**<sup>10</sup> that looks just like a snake.



**War is not the only way. The natural world also has amazing examples of how bonding and co-operation can be successful strategies for survival. And each of these is a mirror of behaviour we see in humans.**

## Kangaroo Families

Many larger mammals<sup>11</sup> care for their young for the first year or two of life, but the mother-cub • bond usually ends before the birth of new cubs. Not so among kangaroos. A mother kangaroo will often have a second baby – called a joey • – while an older one is still feeding from her. Both joeys will share the mother's milk, and the older joey will even care for and protect its baby sibling<sup>12</sup>.



## Big Love

Like humans, elephants are long-living, big-brained animals that develop rich and deep social bonds. Many of the ways elephants show affection (= feelings of love) seem very human: they touch, they make eye contact, they “talk” to each other, they smell each other's poop – well, OK, not *all* of their behaviour seems human. Look at a baby elephant holding trunks with her mummy, though, and it really does look just like a little child.



## The Turkey Gangs

Male turkeys form groups of brothers who do everything together. Only one of the brothers – the biggest and strongest – actually mates (= finds a sexual partner), but they all put on a show, fighting off other groups of males and trying to impress the girls. These groups stay together for life. Among turkeys, it's all about brotherhood.

## Holding Hands

A life at sea means that sea otters<sup>13</sup> have to look out for (= take care of) each other. They hold hands while they sleep on the surface of the water, for example – a practical (and very sweet) way of making sure that individuals do not float off and get lost. Otter mothers also carry their pups • until they are old enough to swim.



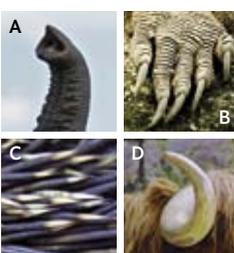
## Lovebirds

When we see two young people in love, sitting close together, hugging and kissing, we often call them “lovebirds”. The term comes from a small, brightly coloured parrot. Lovebirds mate for life, and they spend most of their time **cuddling up**<sup>14</sup> together like a couple of **smitten**<sup>15</sup> teenagers. If a pair of lovebirds are separated, they become depressed, and when reunited they “kiss” and even feed each other.

## TASK

Match these pictures with the animal body parts underlined in the article.

- 1 claw
- 2 spikes
- 3 horns
- 4 trunk



Solutions in TF and the next issue of Bridge

## Vocabulary

- 1 **stinging anemone** [ə'neməni] – prhlivá sasanka
- 2 **warfare** ['wɔ:feə] – bojovanie
- 3 **millipede** ['mɪlɪpi:d] – stonožka
- 4 **hydrogen cyanide gas** ['haɪdrədʒ(ə)n 'saɪnaɪd] – plynný kyanovodík
- 5 **extermination camp** [ɪk stə:mɪ'neɪʃ(ə)n] – vyhladzovací tábor

- 6 **echidna** [ɪ'kɪdnə] – ježura
- 7 **platypus** ['plætɪpəs] – vtákopysk
- 8 **disguise** [dɪs'gaɪz] – prestrojenie
- 9 **poop** [pu:p] – výkal
- 10 **caterpillar** ['kætəpɪlə] – húsenica
- 11 **mammal** ['mæm(ə)l] – cicavec
- 12 **sibling** ['sɪblɪŋ] – súrodeneč
- 13 **otter** ['ɒtə] – vydra
- 14 **to cuddle up** ['kʌd(ə)l] – túliť sa
- 15 **smitten** ['smɪt(ə)n] – bláznivo zamilovaný

## Language Points

- **Bonding** refers to developing emotional relationships. These relationships are called **bonds**.
- **Pup, cub** and **joey** are words for the babies of different animals. Practise using them in the TF exercise.