The animal

Maybe it's animalness that will make the world right again: the wisdom of elephants, the enthusiasm of canines, the grace of snakes, the mildness of anteaters. Perhaps being human needs some diluting.

CAROL EMSHWILLER

THE GREY WOLF AND THE WILDCAT IN YOUR HOME

all decisions for them.

Animals in our home have an identity crisis. On one hand, we see them as a human-like creatures, such that they are capable of the same emotions, decisions, rationales, and that they should eat the same as us, sleep the same, require the same amenities. On the other hand, we also see animals as creatures of lesser value, as objects. Culturally, we are told that as they do not speak in a way we understand, they are not capable of deciding what they need or what is best for them, and so humans are required to make

Domestication shouldn't mean humanisation. All animals that we invite into our home speak the same language, have the same instincts, and are built the same as their wild counterparts. When we see their food bowl, they see their kill, when we walk them, they hunt and observe. When we call them to us, they see an obligation to protect their pack.

CARNIVORA

All species created by nature, for nature. Over millions of years, evolution has innately developed these creatures to adapt to niches in the earth's ecosystem.

Every aspect of our pets' physiology and behaviour has evolved specifically in accordance with their innate lifestyle and instincts. To us, they are extensions of ourselves, creatures we bring into our homes as givers of love and companionship. To the earth, cats and dogs belong to the Carnivora mammalian order.

The composition of their body allows their physical form to hunt most effectively and efficiently, allowing the animal to be healthy and robust enough to reproduce, protect and survive. Each limb, each organ, each gene has a specific purpose, existing to ensure the creature is equipped with all the necessary tools for survival, so that the animal may assist in maintaining, protecting and enhancing its natural surroundings.

TEETH

Meat, fruit, bones and foliage differ in texture and structure and so require different tools to break them down and digest them. The teeth of a carnivorous mammal are distinctive—the carnassial teeth are sharp and blade like, and when the mouth is closed, the teeth close in a scissor like action, allowing for the shearing of meat. The premolars, which correlate to the canine and incisor teeth in cats and dogs, are used for display, capturing prey, and defence. (Gittlemen, 2013)

Unlike humans, who use their hands to grip and tug, cats and dogs often rely on their teeth as their main tool for manipulation. When animals are fed a diet contradictory to their evolved body plan, their tools are unable to correctly manipulate and break down the food. In many cases, the incorrect food can do more harm than good, leaving residue on the teeth and causing poor gum health.

The animal

Just like an animal's teeth, an animal's digestive tract gives clues to their most biologically appropriate diet.

DIGESTIVE SYSTEM

Just like an animal's teeth, an animal's digestive tract gives clues to their most biologically appropriate diet. A sheep, who grazes on pasture and hay for about seven hours per day, has an average small intestine length of 25m. Plant matter is high in cellulose, which requires hours and specific gut bacteria to break into usable nutrients.

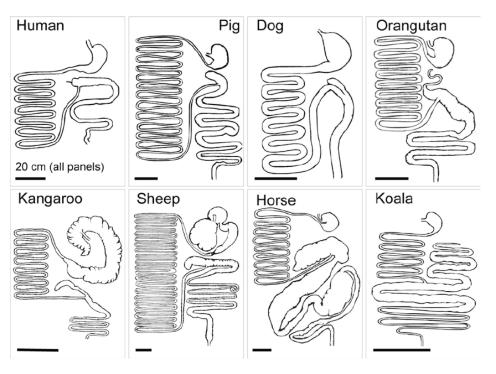
Carnivorous animals like cats and dogs have a comparably short digestive tract. This is because their intended diet of raw meat, bone and flesh is high in easily accessible nutrients. Carnivores require less time and energy into extracting nutrients from their food, and thus rely on a shorter small intestine.

Because it is shorter and less complex, when carnivores are fed non-biologically appropriate sources of food, the digestive tract is not equipped to access the nutrients in the food. This would lead to less nutrients being absorbed by the animal, and more waste. This is why raw fed cats and dogs usually produce less and smaller stools—they are able to use and absorb most of their food.

GUT CHEMISTRY

It is not just physical and mechanical features that give insight into an animal's biologically appropriate diet.

A cat or dog on a raw diet has a stomach pH of around 1–2. This high pH is useful in killing pathogens and provides the correct environment for digestive enzymes to work efficiently. This strong pH is stimulated by the proteins in the meat (this article by Raw Essentials discusses the scientific process well). Other food sources, such as food high in starch, alters this pH towards neutral—this inhibits the ability of the digestive system to break down nutrients, and weakens the body's ability to remove pathogens.



Stevens and Hume (1998)

THE PET GROCER

NUTRIENT CYCLING IN SOIL

In the ecosystem, many creatures and organisms collaborate to produce, consume and decompose plant and animal matter and convert it into energy and accessible nutrients. The trophic level diagram below is a visual display of the way in which these organisms recycle nutrients.

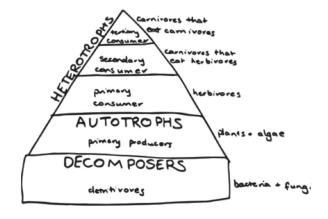
DETRITIVORES (BACTERIA AND FUNGI) These organisms are decomposers, that break down dead plant and animal matter and waste into energy and nutrients to be recycled.

AUTOTROPHS (PLANTS AND ALGAE) these organisms make their own food, by using the nutrients and energy provided by the detritivores, as well as photosynthesis, to manufacture their own food.

HETEROTROPHS (HERBIVORES, OMNIVORES AND CARNIVORES)
This level are consumers, as they are unable to produce their own food, so then get their nutrients and energy from eating other organisms. Herbivores are primary consumer, as they eat only plant and algae, carnivores that eat herbivores are secondary consumers, and carnivores that eat carnivores are tertiary consumers. The further up the trophic pyramid, the less energy and nutrient dense the diet, so they must eat more food.

A healthy, biodynamic ecosystem is one that is abundant in detritivores and autotrophs, producers of nutrients and energy. Cats and dogs are usually secondary consumers, eating mainly herbivores. When the herbivore is raised in a biodynamic environment, abundant in nutrients and energy, then they will become a nutritious and bioavailable source of food for your animal. However, herbivores raised in low biodynamic environments, which are low in energy and nutrient producing organisms, the herbivores too will lack nutrients, which then becomes a poor-quality meal for your animal. This article covers the importance of healthy and biodynamic soils in the overall quality of the food produced.

The Pet Grocer sources its proteins from free-range or wild-caught environments. In those environments, there is less interference of the soil, and so a more bioavailable diet for the herbivore. In this case, the meat will tend to have greater nutrient diversity and value, thus having a more positive and beneficial impact on your cat and dog.



The animal

Like in healthy soil, good bacteria work as nutrient recyclers, turning toxic or unusable substances into beneficial and digestible forms for their host.

BACTERIA

Humans and animals share their bodies with billions of tiny, living bacteria. While bacteria are often seen as harmful and pathogenic, the majority of the bacteria within our body is good, and acts as a secondary immune system and digestive system. Like in healthy soil, good bacteria work as nutrient recyclers, turning toxic or unusable substances into beneficial and digestible forms for their host. However, bacteria need a healthy living environment to process nutrients and toxins effectively.

When animals are fed a 'dead' diet (any diet lacking in live organisms or cultures due to cooking or chemical processing), they are unable to provide the bacterial colony in the ecosystem they need to survive. Other animals may have a sufficient ecosystem to support a bacterial colony, but may not receive enough good bacteria to perform nutrient cycling.

A raw, bioavailable diet is abundant in live cultures that greatly assist in fighting bad bacteria and the digestive system. Prebiotics contain necessary nutrients and compounds to support a healthy bacterial colony, while a probiotic consists of these good bacteria. When the digestive system and immune system are supported by a healthy microbiome, they are able to focus more on preventing disease, and supporting organ and neural function.

<u>REFERENCES</u>

Gittleman, J.L., 2013. Carnivore behavior, ecology, and evolution. Springer Science & Business Media.