

# Job Opportunity for an Adventurous Insect

By Jennifer Rasal

Are you a louse who is bored with your host? Do you fancy a change of habitat? This is a rare and new opportunity for an insect. As the insect group invests in its expansion into the marine environment it is looking for new members to take up the exciting position of: Blood sucking lice, true parasites of marine mammals, working in the *Anoplura* family branch. The louse who applies for this position must be adventurous, hardworking and adaptive to the different requirements and pressures that will be necessary to each situation. This particular job advert will cover the position available in the parasites for the fur seal department.

## Background

As insects we are the most diverse group of animals on the planet, yet there is one area which we have not yet fully exploited - the marine environment. The *Anoplura* family are one of the first groups of insects to take the plunge and have moved into the marine world. They took a huge risk and are proud to say they have made a success by living on a variety of marine animals, including seabirds and marine mammals. They are now ready to expand their family's coverage and are looking to recruit more insects to join their colonising team.

## Working conditions

The insect that takes up this position must be resilient to a wide range of working conditions, the hosts available are often diving animals, penguins, fur seals, elephant seals, cormorants etc. The job is high pressured, as the diving animals can reach depths of 500 metres, and the insects conducting this work will need to be able to withstand a wide range of temperatures. The *Anoplura* family prides itself on being able to work in temperatures right down to -20°C, you would be required to cope with the temperature found in the polar regions as well as the subtropics. Training for this is limited and you would be expected to self-evolve in time. Typical working time is 24 hours 7 days a week, the *Anoplura* are a family and they work as a family and you never take time out from being a family.

## Salary

There will be unlimited blood available courtesy of the host, but each louse is asked to control their feeding and take only around 0.003ml of blood each day. This will prevent the host from developing health concerns due to low iron concentrations. A healthy host makes for a happy home. You'll be able to feed directly from small blood vessels of the host mammals, on condition you can provide your own feeding apparatus.

## Prospects

The prospects available long term largely depend on the host that you will be assigned to. Due to the nature of the marine environment there will be little opportunity to change your host once you have moved in. As such your future will be determined by the host, the standard coevolution of parasite and host apply. As the host evolves over time to cope with its residents, you will be expected to co-evolve to manage whatever strategy your host may choose to peruse to evict you. Long term this could lead to some very advantageous adaptations which is wholeheartedly encouraged by the *Anoplura* family who have already adapted to extreme pressures and temperatures. Although new

host opportunities are scarce there will be a chance during the breeding season to move between copulating couples and mother and cubs.

## Location

Each host offers a variety of locations, the most popular being the pinnipeds. On starting the work you'll be housed on the dorsal surface in what we term the 'nursery'. This area is under more favourable conditions and is perfect for young recruits. Upon promotion you'll be able to move to the belly of the host, a more social area for the *Anoplura* family's workers. There is also the opportunity to move out to the outlying district of the pinnipeds flippers, very popular with more established lice. There will also be occasion to holiday at the host's eyelids and nostrils.

## Benefits

There are many benefits for the lucky louse that joins the *Anoplura* family. The marine environment has not yet been fully explored by insects and we are hoping to expand and create new niches for insects. As our insect families evolve and overcome the elemental factors of the marine environment we will be able to colonise more areas of this lucrative habitat.

We look forward to receiving your application, and for you to join us on our aquatic journey.