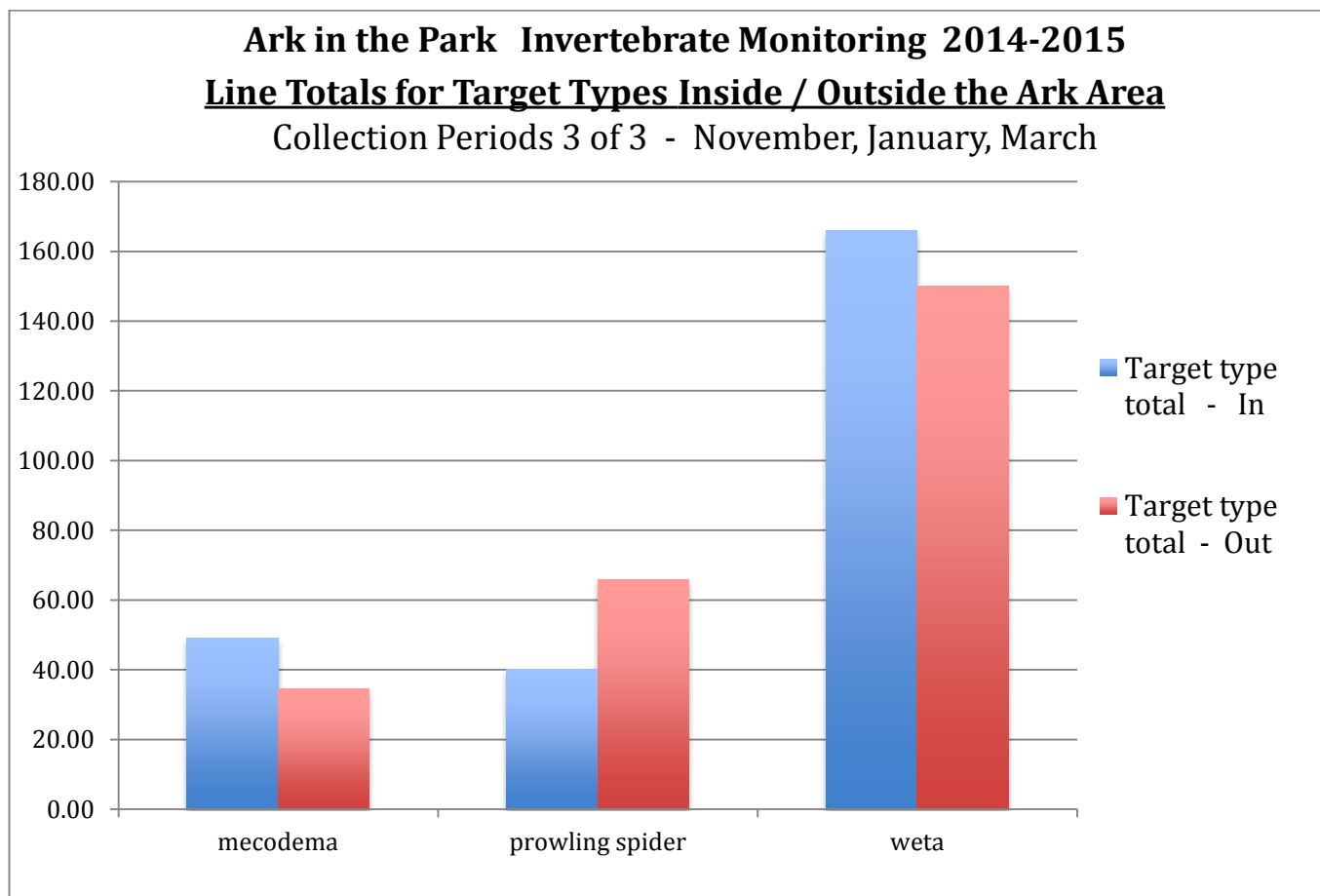


# Invertebrate Monitoring Report Don Morrison

2014 - 2015 Season

This is the second season of the new invertebrate monitoring programme. Three monitoring sessions were covered in the 2014 - 2015 season. November, January and March.

## 1. Abundance of Target Species Inside and Outside of the Ark in the Park area.



Results for the 2014 - 15 season do not show as great a difference in favour of lines inside the Ark as in the previous 2013 - 2014 season. This could be a reflection of the greater abundance of rats within the Ark in 2014 - 2015 as indicated by the general rat monitoring processes associated with predator control.

In order to more closely monitor the relationship between rat numbers and invertebrate abundance it was decided to use rat tracking tunnels alongside the regular pitfall traps.

The final format for this monitoring was as follows.

Tracking tunnels are set out beside every second pitfall trap and monitored over 24hrs at the beginning and the end of each pitfall trapping session.

June 12, 2015

Initial data shows some rat abundance patterns both between and within trap lines but it will require a full season of regular monitoring for meaningful results.

## 2. Diversity

There is some evidence of species diversity according to location especially in the ground beetles and spider categories but this only relates to two seasons of monitoring.

## 3. Wasp tracking

Following an increase in general wasp numbers in the Ark and in those appearing in pitfall traps (24 in March 2014) the German and common were monitored separately this season. Five wasps were identified in November 2014, None in January 2015 and 2 in March 2015.

## 4. Skinks

Three copper skinks (2 in Auckland City Walk and 1 in Browne Track) were caught in pitfall traps this season. No skinks have been trapped previously.

### **Possible Future Investigations**

1. The balance of native to exotic species
2. Localisation of different species of common invertebrates.