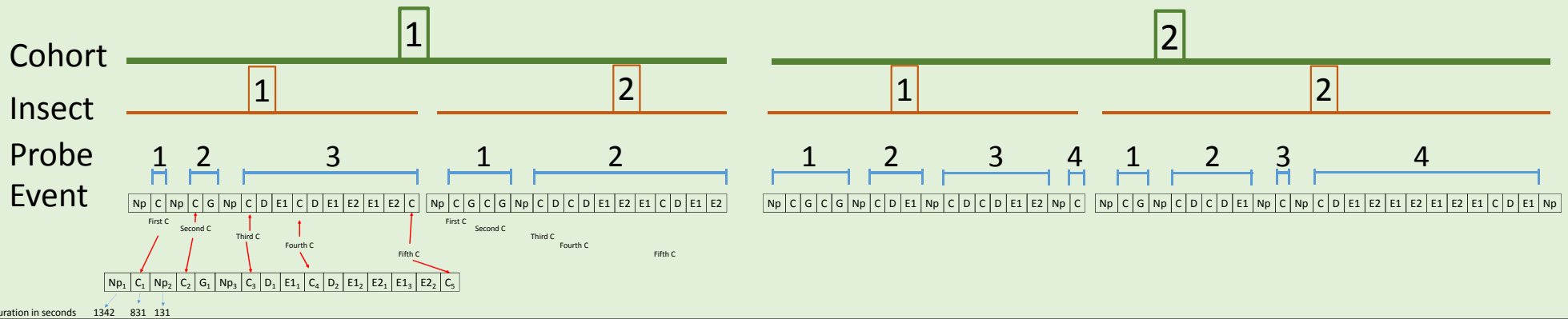


# Understanding the Structure of EPG Data

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## Hierarchical Levels



Note: Cohort can be treatments in an experiment. It can also be observational categories like sex. The experiment looking at feeding behavior of an insect on two host plants has two treatments. If individuals are identified as male or female then the experiment has four cohorts.

Note: Every location has a name. Within each location there is a duration. Thus,  $C_4$  (cohort 1, insect 1) might last 2893 seconds, while  $Np_3$  (insect 1, cohort 2) might last 14875 seconds. The name of a location and the contents at that location are not the same.

Note: For most variables the probe level information is not used. The Backus program is better at dealing with probe level information than the European programs and Ebert 1.0. Ebert 2.0 (designed for analysis of psyllid data) has mostly overcome the issue.

A Quiz:

- In which probe is  $D_2$  for insect 2 cohort 1?
- In which cohort and insect would I find  $D_4$ ?
- How many times does one find G after  $E_2$ ?
- What is the average number of C per insect?

- 1) Second Probe
- 2) Cohort 2, Insect 2
- 3) There are no G at any time after the first  $E_2$
- 4)  $5+5+6=22$ .  $22/4 = 11/2 = 5.5$