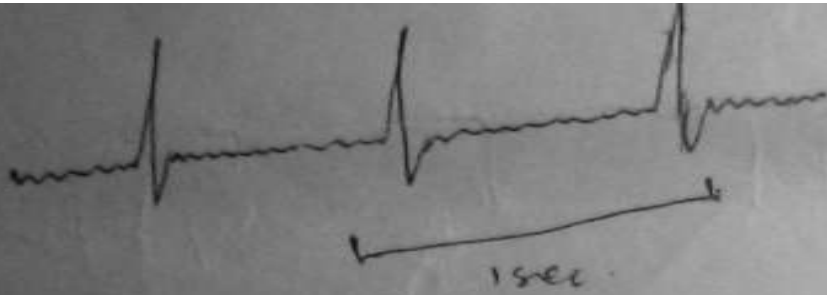


ECG (Electro Cardio Gram)

- **When heart muscles together contract or relax it leads to change in electrical potential on the body surface near the heart and also gets carried all over the body. By some sensitive equipment the electrical potential can be recorded graphically which is known as electro cardiogram. In an ECG normally upward movement of line represents depolarisation and downward movement represents repolarisation.**

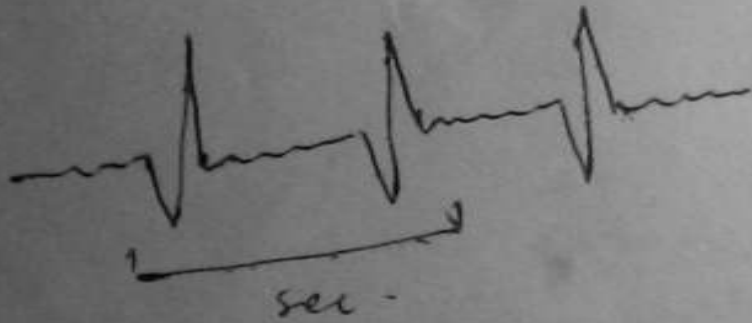
- **However in different animals different types of heart are there such as two-chambered, 3- chambered and 4-chambered and in the heart auricles are thin walled and less muscular whereas ventricles are thick walled and more muscular.**
- **As the electrical wave begins in auricle, the auricle contracts first followed by contraction of ventricle**

- **The auricular contraction usually produces a weak electrical wave on the body surface and ventricular contraction produces a strong electrical wave on the body surface.**
- **Hence in ECG the auricular wave is smaller and the ventricular wave is bigger.**
- **However many times due to the difference in recording method different types of ECG are obtained.**
- **Following figures shows some of the ECG,**

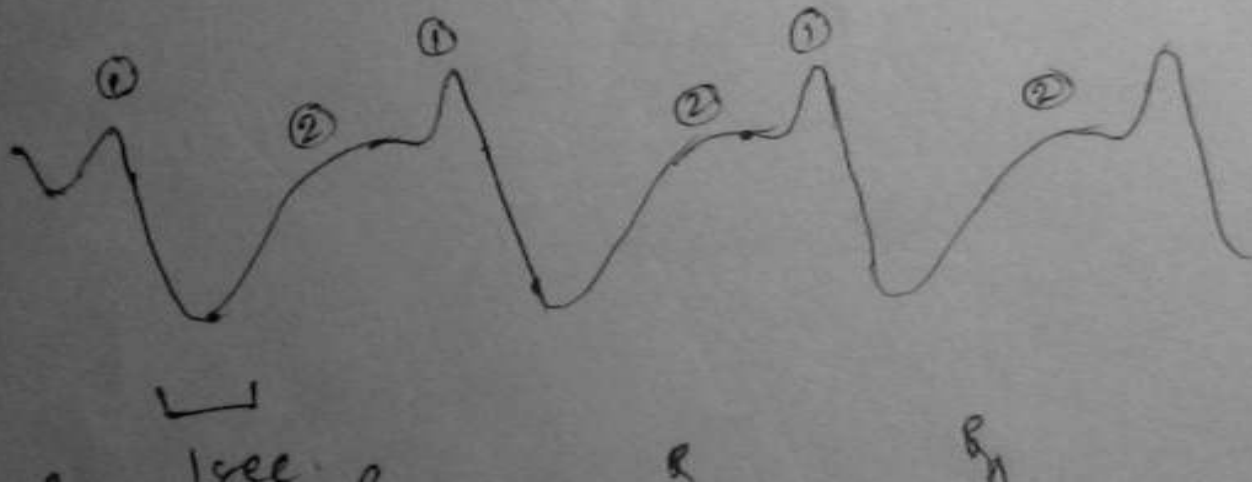


ECG - Crab.

Single
Chambered
Heart.

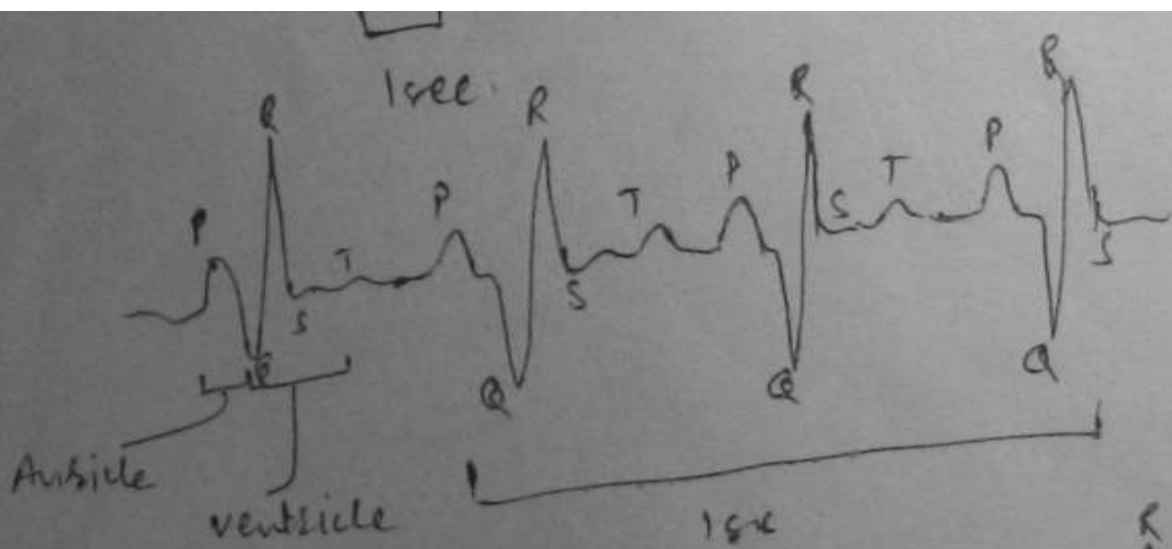


ECG - Locust.

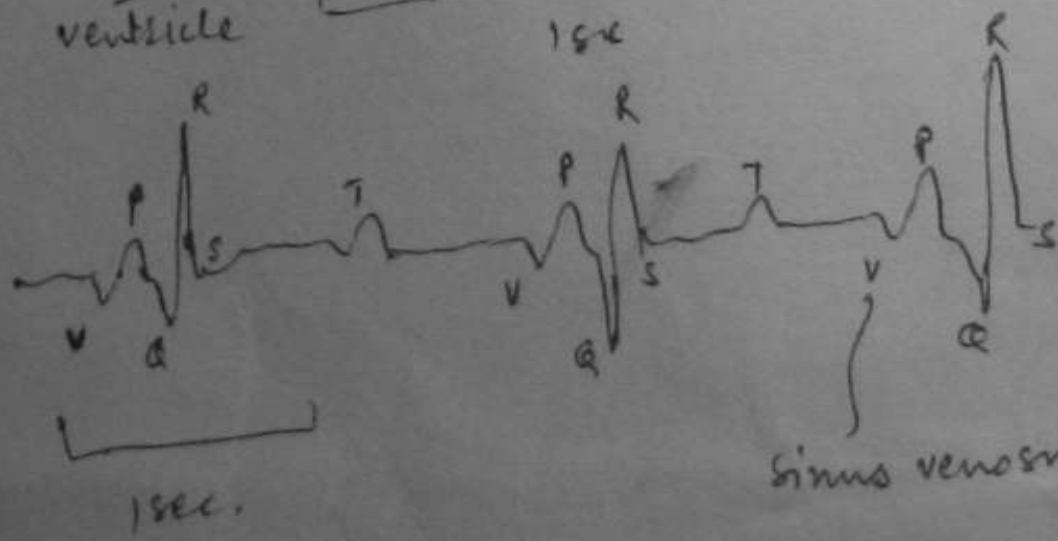


Clam

2 chambered
Heart.



Deck 4 chambers
ECG Ha



- Front-ECG.

Fig. 4 ECG of
diff. organisms

- **Auricular (Artial) wave is small denoted by P.**
- **Ventricular wave is bigger in magnitude denoted by QRS.**
- **Repolarisation wave is small denoted by T. Some examples shown below :-**
- **In animals where sinus venosus is present its additional wave is some seen as v-wave.**