

Video Transcript

How to make cnidae preparations

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- The types, the distribution, and the size ranges of the cnidae are diagnostic characters for sea anemones.
- Thus, in order to identify a sea anemone, you need to make cnidae preparations.
- In this video I am going to show you how to make cnidae preparations.
- Cnidae preparations can be made so they are permanent or disposable.
- For permanent preparations you will need slides, a cover, a marker, tweezers, some kind of resin, you will need a solution of lactophenol.
- For disposable cnidae preparations, you can use water instead of the lactophenol solution.
- We will start with a dissected specimen, you will need to make preparations of every part of the sea anemone, so you will need a preparation from the base, from the column, from the tentacles, from the actinopharynx and from the mesenterial filaments.
- In case your particular specimens have specific structures like acontia, or structures in the column, you will also need to prepare those.
- We will start our preparation taking out a slide and labeling it.
- It is important to write your specimen and the part that you are going to do the slide from.
- When your slide is labeled, you take your solution of lactophenol, put a drop on the slide.
- Lactophenol is toxic so you should handle it with care.
- In this case, we are going to make a slide from the column of the animal.
- You get your specimen and simply scratch the surface of the tissue.
- Once the tissue is on the slide, you just need to slowly put a cover on top of it, and softly squish the preparation.
- After that, we clean the excess liquid in order to be able to seal the preparation.
- Finally, you are going to need some kind of resin in order to seal the preparation and make it permanent.
- You can use nail polish. That will work.
- At this point, the slide is prepared, we just need to let it dry for about 10 minutes before we can observe it under the microscope.
- For most parts of the body, scratching could be enough to get the tissue, however, for the mesenterial filaments or the acontia, taking a little piece could be easier.
- In order to distinguish some types of cnidae, you need to observe the capsule discharge.

- For this, it is good to make a cnidae preparation from living material.
- The procedure is the same, however, we will have an additional step in which we will add a drop of acetic acid solution at 4% that will help discharge the cnidae.

