# GEEK-LUNCH

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A few reasons why you should take 2 minutes (or 2 hours) to think about how your samples will be identified, labeled and stored

# SAMPLES LABELING/IDENTIFICATION

*Poorly identified samples will sooner or later become unusable.*

**SAMPLE ID**

- Usually a code which quickly refers to the sample and allow its distinction from other samples
- Most “mean” something
- Avoid long or complicated ID. It worth's spending a few hours thinking about it.

**VS.**

**LABELING INFORMATION**

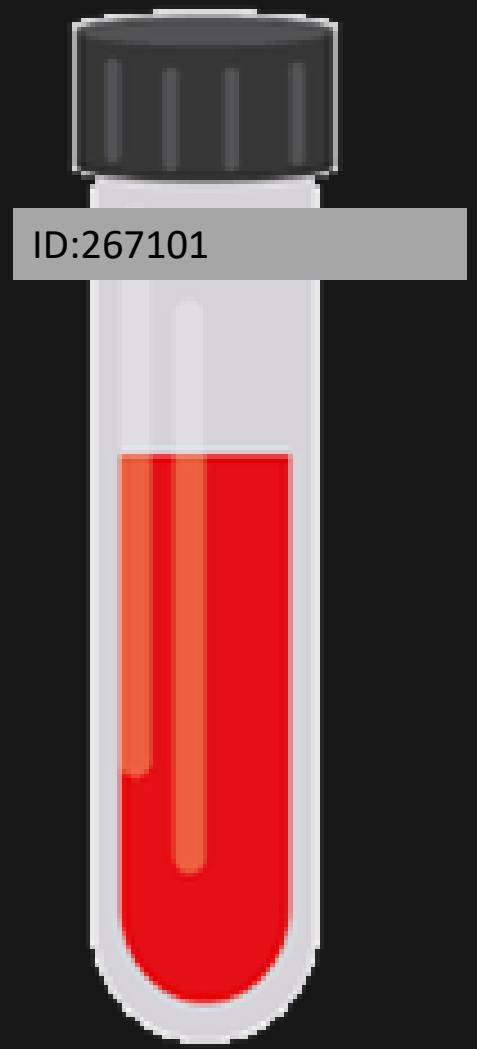
- Additional information which should appear with the sample NOT ON ONLY ON DATA SHEET !
- Important information about the sample but that cannot be derived directly based on sample ID

EX. - treatment, species, lab ….
- date
- GPS locs
- original vs. subsamples
- etc…

# SAMPLES LABELING/IDENTIFICATION

*Poorly identified samples will sooner or later become unusable.*

- Think about your labeling system before going to the field, it's not something to plan while starting collecting samples. Choose one and stick to it !





- Identify your samples while collecting it, don't wait to be back at the lab to complete identification.

- Less is better...except when it come to add info on your samples.

# EXAMPLES

# SAMPLES LABELING/IDENTIFICATION

## Some GOOD practices

- Make your labeling system as informative as possible, otherwise you'll regret it in the lab
- Include as much information possible directly on the sample. Don’t wait for the moment you will write your metadata as you will probably have forgotten half of the important details about each sample by then.
- Don't rely only over data sheet to save the information. Write directly on sample bag. Make samples usable by themselves.
- Ask someone to “test or validate” your ID/labeling system before starting the sampling phase.
- Do not hesitate to insist (even with professionals) on the importance of a good identification system.
- Identify your sub-samples the same way you labeled the « original » samples

# SAMPLES LABELING/IDENTIFICATION

Some BAD practices….even if in your head you think you will be ok identifing your samples that way ☺

- Avoid using ID that might change in time (ex. collar number) to refer to individual samples
- Avoid using NUMBERS or LETTERS (alphabetic order) that mean nothing to identify samples…what will you do once you reached “Z”
- Don’t assume that because you know what is your sample that everybody will know too…how many people can truly differenciate ungulates feces at species level just by looking at it ;)
- Labeling by DATE alone means nothing…except date of the day
- Other bad examples?

# SAMPLES CONSERVATION

*Poorly stored samples will sooner or later become unusable.*

- Variable with tissue types. Still, here a few aspects to consider:

  1- Light
  2- Temperature
  3- Humidity
  4- Type of containers
  5- Contamination *(ex. Dried plants conserved in paper bags over a long period of time will eventually become enriched in carbon simply because bags contain carbon)*

- Pre-treatments. No method is free of disavantage, but somes are more risky for conservation over long periods of time

  1- as received (maybe a good idea to subsample)
  2- solvant/chemicals
  3- dried
  4- freeze (best option for long terms is -80$^{o}$C). Avoid melting/freezing cycles
  5- freeze-dried (lyophilizaton)

# Where to find the right information about samples conservation ?

Don’t ask your director, wildlife technicians, senior biologists etc… Ask lab technicians. You will save hours, and probably your samples by the same time.

# SAMPLES = METADATA

*Samples with useless metadata will sooner or later become unusable*

- A few aspects to consider:
    - Don’t wait at the end of your project. Metadata should be updated as new samples arrive.
    - Detail if original samples have being subsampled (and for what reasons). Usefull when time come to plan additional/new lab procedures.
    - Include samples **location** and **methods of conservation**. Seems stupid until you have to search for samples collected 5 years ago and you don’t know where to start.

# QUESTIONS ?