## HOW TO

# PREPARE BIRD SPECIMENS

Part 14 – Labelling: the most important step













The Migratory Bird Conventions Act regulates the take and possession of birds in Canada. The Migratory Bird Treaty Act regulates the take and possession of birds in the United States. In addition, the provinces (in Canada) and the states (in the United States) also require permits. For some species SARA, ESA, or CITES permits may be required.

When handling dead birds, it is probably impossible to tell if a bird is infected with a pathogen that may cause human illness even if you know the cause of death to be a wound or an injury. Take reasonable precautions to protect yourself. The Ornithological Council offers a peerreviewed fact sheet on avian zoonotic disease and safety precautions for those who handle birds in the field and in the lab.

http://www.nmnh.si.edu/BIRDNET/documen ts/WNV&H5N1-FactSheet.pdf



### Are these Northern Cardinals all the same sex?



## What sex is this Northern Cardinal partial albino?

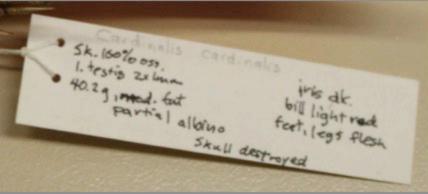


At a bare minimum, a label has the name of the museum or private collection which currently owns the specimen, a unique catalogue number, the location and date where the bird died, and who collected it.



Photo taken at the Louisiana State University Museum of Natural Science

Internal body condition and organ measurements are obtained during the skinning process. The safest place to record this data is on the prep label.



The value of a study skin is a combination of its rarity and the associated data. An unusual bird with no data is more of a curio than a research tool.



Did these aberrant females lay eggs and pass on their melanistic (top) or dilute (bottom) plumage?





Ovary: 19 x 14 mm, finely granular, follicles < 0.5 mm, right gonad not evident, though area is clear and undisturbed; oviduct 7 mm at cloaca, convoluted; no penis; bursa: none, not even a shallow pit

WASHINGTON: Grant County; Royal City, 6 mi S, 10 mi E; Lower Crab Creek

Prep: C. S. Wood 7236; Coll: S. A. Rohwer 1333 gm (1/08), moderate fat

30 NOVEMBER 2007

With Mallards and other birds that can be sexed by plumage, not collecting gonad information is short shifting the specimen.

The label notation that the gonad identification was confirmed by a 2<sup>nd</sup> person and photographed is unusual. The convoluted oviduct confirms that the Mallard in the next slide has laid eggs at least once.

University of Washington Burke Museum

87098 round/wing

## Anas platyrhynchos

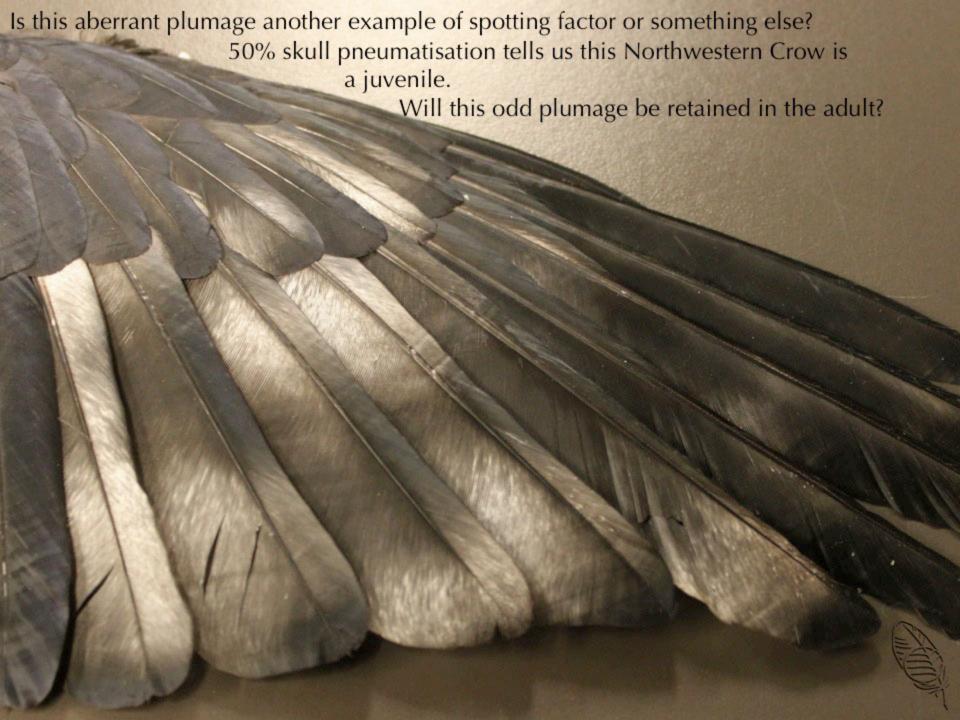
Molt: heavy on head and neck, some on flanks and near tail; Misc: shot; wingspan 91 cm; gonads confirmed by S. A. Rohwer and photographed (see accession file); flushed last in a group of five mallards, not paired



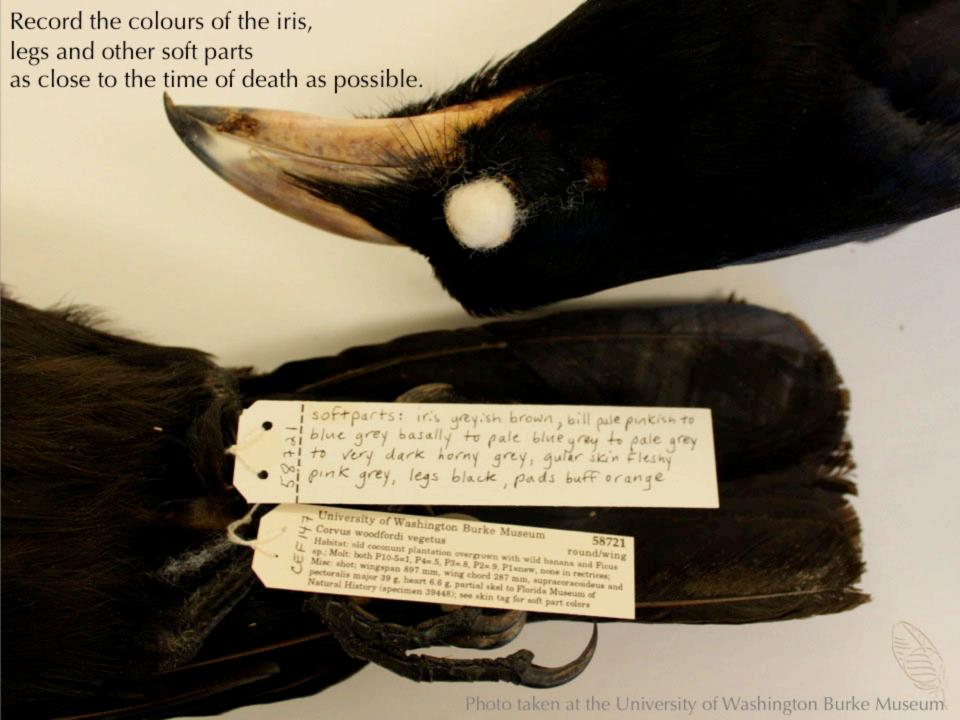
Odd birds should be sexed carefully and, if required, a second opinion obtained.

This American Coot exhibits spotting factor (extensive asymmetrical white feathers). Is this condition sex linked?











Did this yellow Acadian Flycatcher have normal eyes?
A researcher doing DNA work might need to know.



Data recorded on a well written labels answers this and many other questions, enlarging a researchers understanding of the specimen.

Reading labels can help to find and identify trends.





Or cause frustration about where to look for a convergence zone for this hybrid Bird-of-Paradise.





Photos taken at the American Museum of Natural History



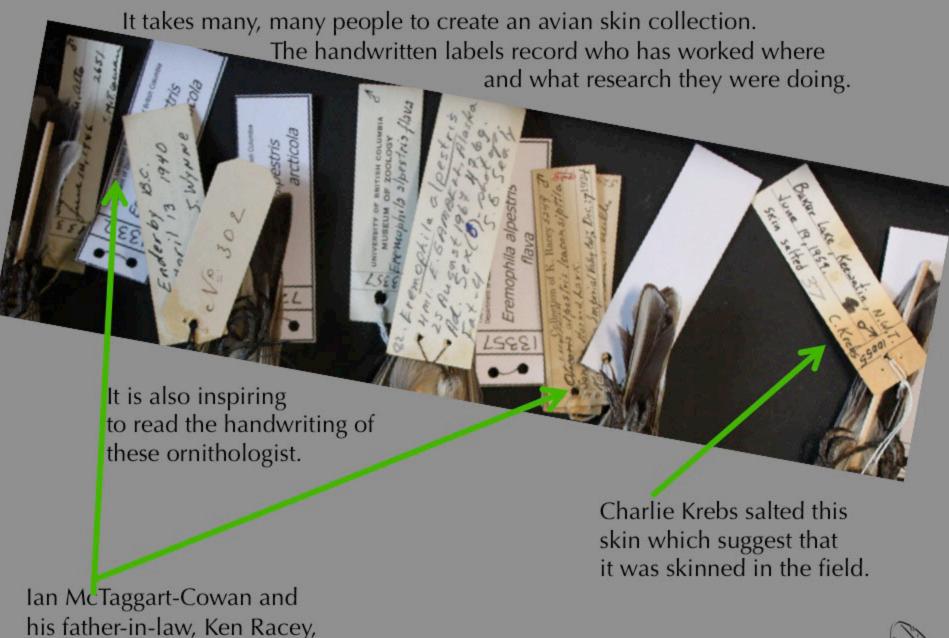




Labels are a living history of the the bird specimen history:

- Inventory label added prior to the incorporation of the Cowan Vertebrate Museum into the Beaty Biodiversity Museum
- Accession label. This was the12,091 specimen added to the UBC Museum of Zoology
- Preparation label
- Original label from when this specimen was part of a private collection in South Africa





his father-in-law, Ken Racey, collected and prepared skins to found the avian collection at the University of British Columbia.



It would be a shame if the work of this researcher was lost due to a label being removed or using poor materials.

567/63

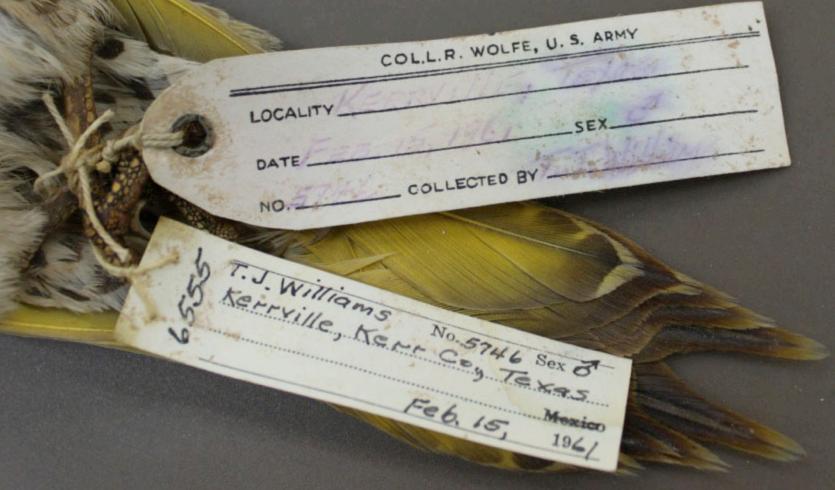
Maria Magdalena Trestarias k

Nay, Mexico 24 TUNE 1963.

Testis 0.7 cm.
Fat 5 Wt. 20.89 P.R. GRANT

Never use a ballpoint pen. If you do not have an archival pen, use a pencil. Contact a museum in your area and ask where they obtain archival paper and pens.

If pre-printed labels are required, ask a museum to recommend a printing company which is familiar with using archival materials. If you want to print your own labels, finding archival laser-jet printing ink may be difficult.





Here is an unusual problem with a specimen collected by an Emperor.

The original label was folded in four, trimmed to form this octagon, and, many years later, sewn onto another label without transcribing the information inside.

Will detaching the label and unfolding it cause the paper to shatter?



A similar problem could occur here. The encoding system on this label may become obsolete and barcodes readers unavailable.



These labels combine readable information with QR codes. When QR codes are obsolete, the words will still be readable.

#### **AVERY®**

#### L7167TM

NCB Naturalis - Leiden

#### RMNH.MAM.45525.a Cheirogaleus medius É. Geoffroy, 1812

Voy. van Dam col.: Dam, van dat.: 00-00-1870 loc.: Madagascar Mouroundava



#### Jam-Free™Lasershipping

NCB Naturalis - Leiden

#### RMNH.MAM.45525.b Cheirogaleus medius É. Geoffroy, 1812

Voy. van Dam col.: Dam, van dat.: 00-00-1870 loc.: Madagascar Mouroundava



#### 199.06 x 289.1 mm x 1

NCB Naturalis - Leiden

#### RMNH.MAM.45526 Bubalus depressicornis C. H. Smith, 1827

col.: Diard dat.: 00-0000-1864 loc.: Indonesië Celebes



Database design for avian collections is beyond the scope of this series. Note that both the specimen and the label are photographically archived.



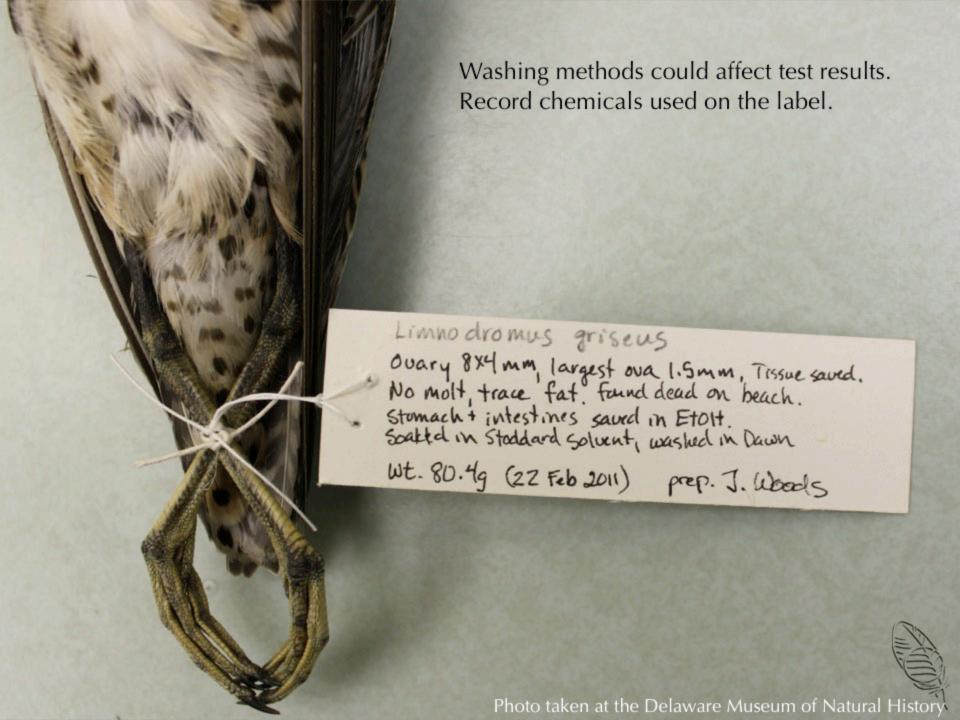
The original data is as important as the specimen which is why both sides of the label are documented.



Any analytical technique used (DNA, stable isotope, spectrometric, etc.) increases the research value of a round study skin. All raw data from the test listed above or new test techniques yet to be developed should be archived.

This includes citations for reports or papers that mention a museum specimen.

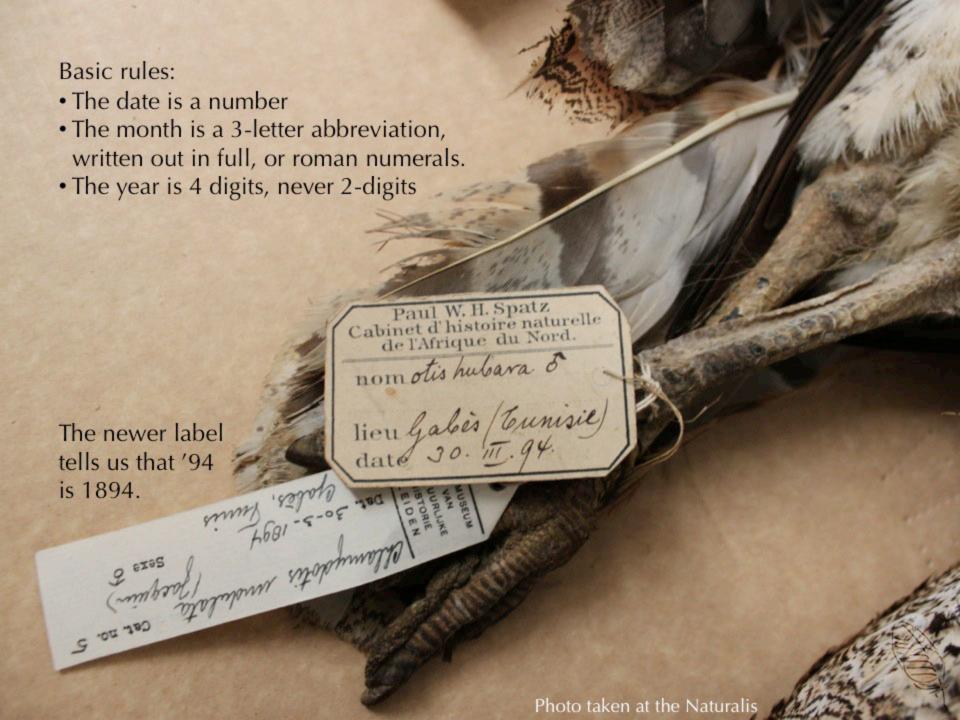




# How the date is written is critical:

The "13" on both these labels make it easy. Imagine if it had been "7/5" or "7-5".





Label all birds with care. It is hard to predict which birds will be of special interest in the future.

Knowing which century these woodpeckers were collected is of paramount importance.





If your collection does not have established protocols for writing labels, LSUSMNS's guidelines are available as a pdf in the Resources Section of this website:

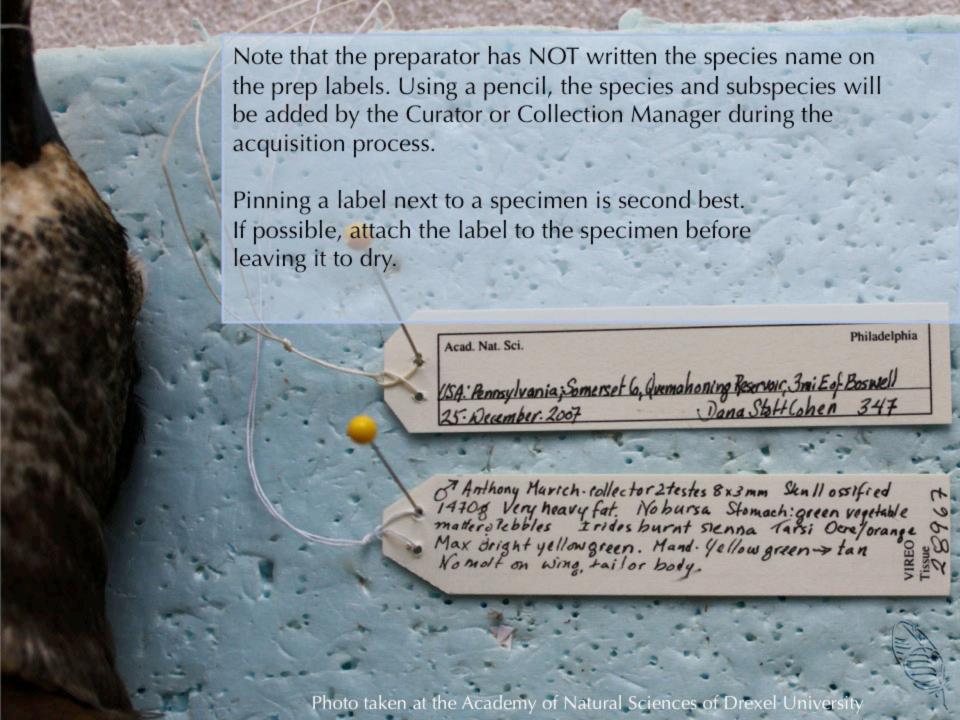
http://www.beatymuseum.ubc.ca/research/birds

Louisiana State University Museum of Natural Science

APPENDIX 1. Procedure for Filling Out LSUMNS
Bird Labels

By Steven W. Cardiff, J. V. Remsen, and Donna L. Dittmann

(Revised 12 May 2011)



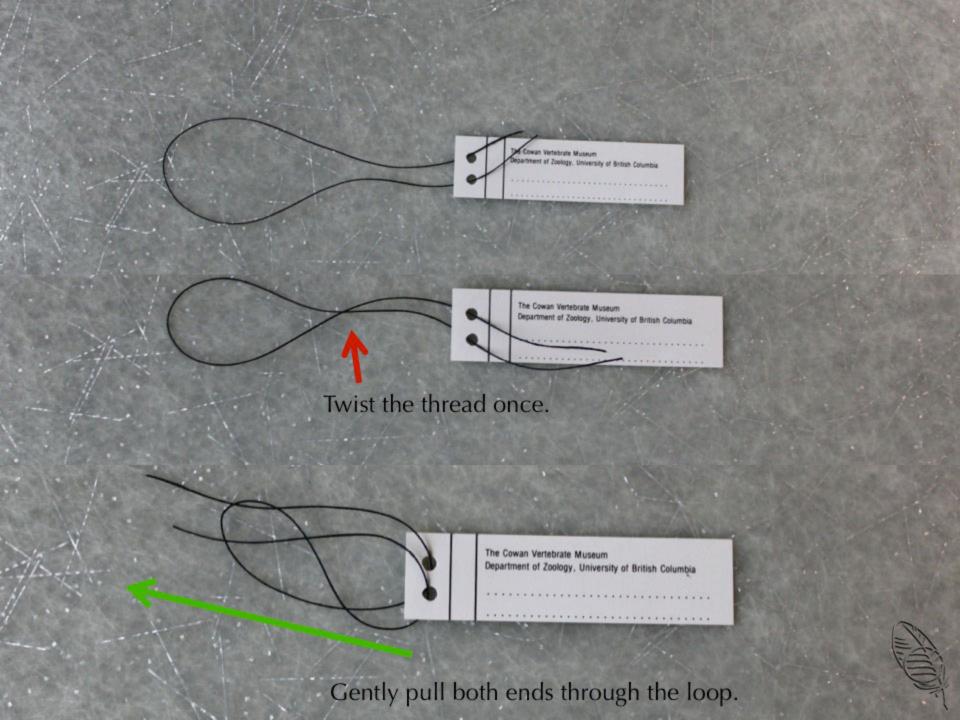


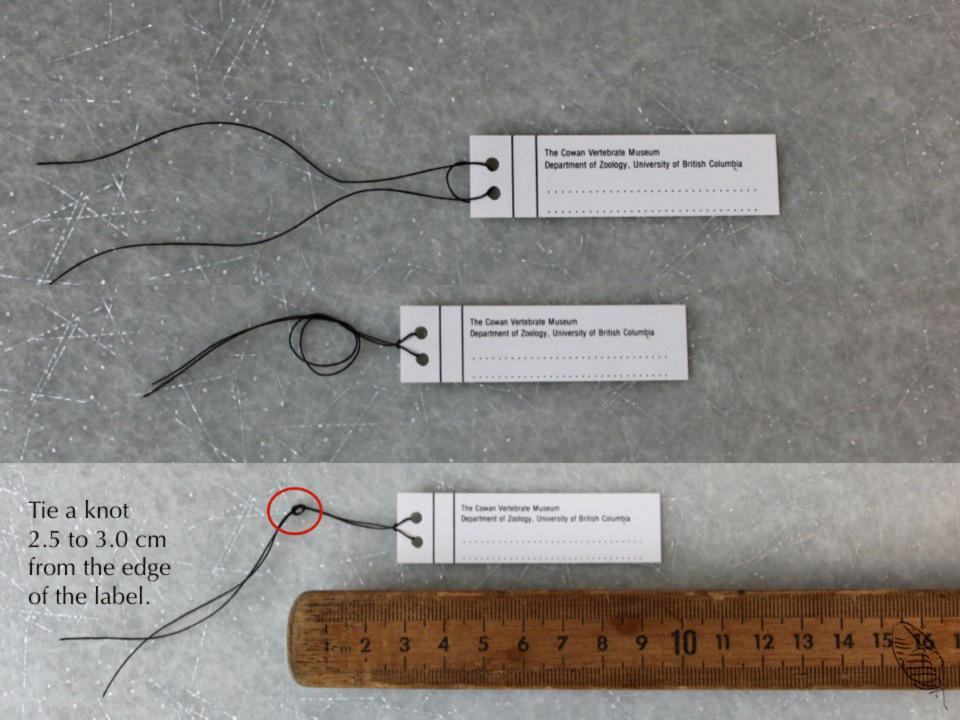
Most museums use the following method to attach the string to a label:

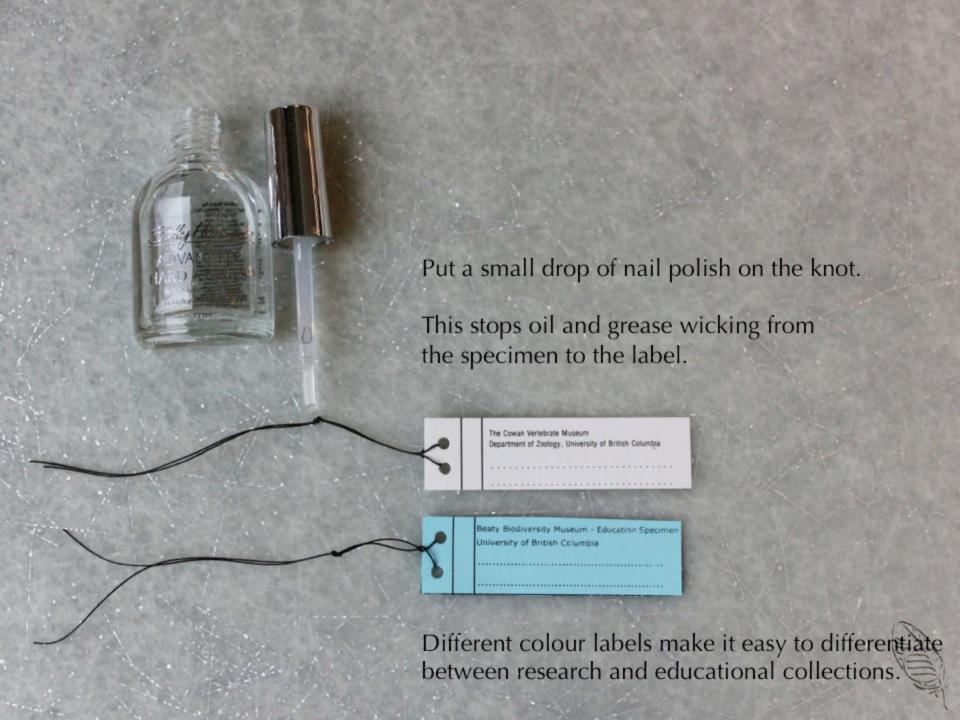


2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 3

Start by cutting a length of thread that is approximately 25 cm long. Length depends on bird leg diameter.











Apparently pulled from *Dendroica tigrina* tray. There is one missing *D. tigrina* (41547). However, this bird is a female *Dendroica caerulescens*. There are two missing *D. caerulescens*, 31 & 19292. No. 31 is a 12 July 1953 male from Pennsylvania. No. 19292 is an 8 Dec 1953 immature female from New Mexico. This last entry does not make sense as this species is not known to occur in NM. Given that the specimen has DMNH tag of the oldest variety I suspect this is No. 31.

#### This is a problem drawer.

Apparently pulled from *Dendroica townsendii* tray. No loose tag was found during the move. There are no *D. townsendii* in the Missing CatNumbers With Species-Not Found Access query. This bird is *Dendroica tigrina*. There is one *D. tigrina* listed in the above query, No. 41547. Because of the way this bird is prepped & its condition compared to the *D. tigrina* in this series (including one collected at the same place & date) I do not believe this is the missing bird.

believe this is the missing bird.

And Not. Sci.

Sie te Calores

Ma Company

Tangara fastussa from the office of

Mel & Carriker & following his death. (4 of D marine

Received from Dr. Charles Epifanio

on \$3 July 2007 (via. Dr. Liz Shea)

Note - Hemonts + marce both list range as Brazil

Note - Hemonts + marce both list range as Brazil

Tag lists as Siete colores (Tanager) but really Paradrse Janager

seven-rolored

Detail notes will help match these birds to their labels when additional birds or labels are found.

A preparator's

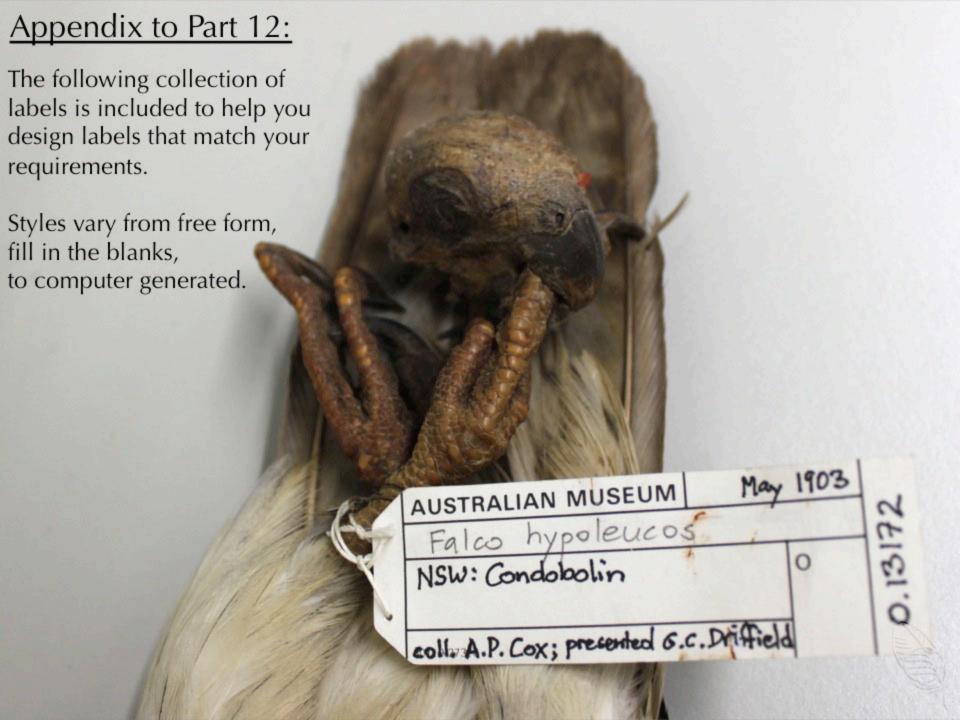
"signature" is a
combination of the
shape and quality
of the skin,
the label style, and
the handwriting.

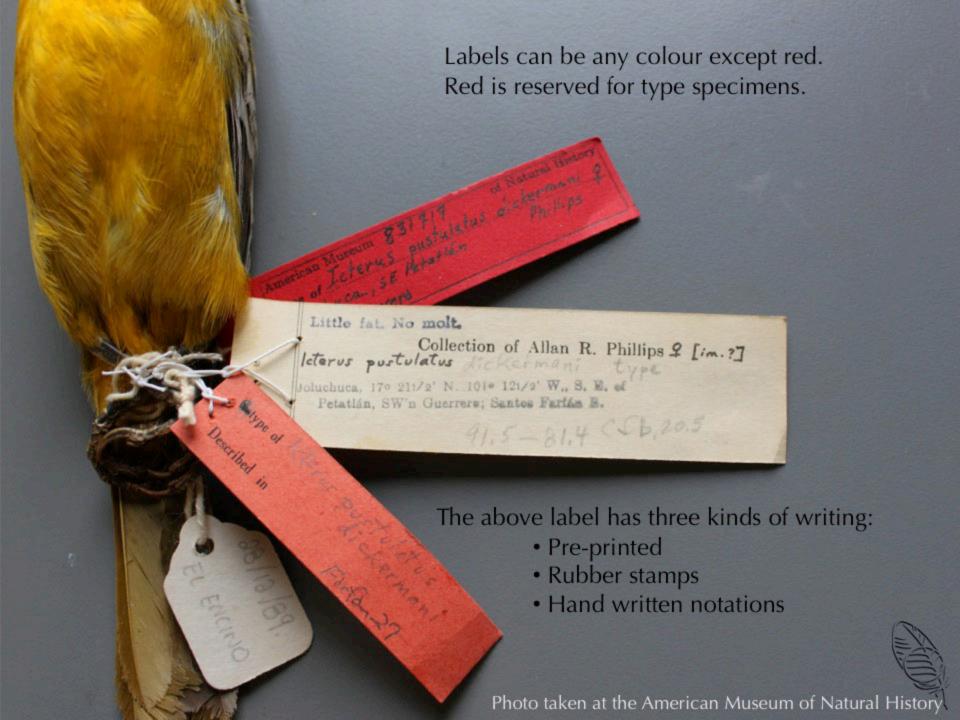


Photo taken at the Delaware Museum of Natural History

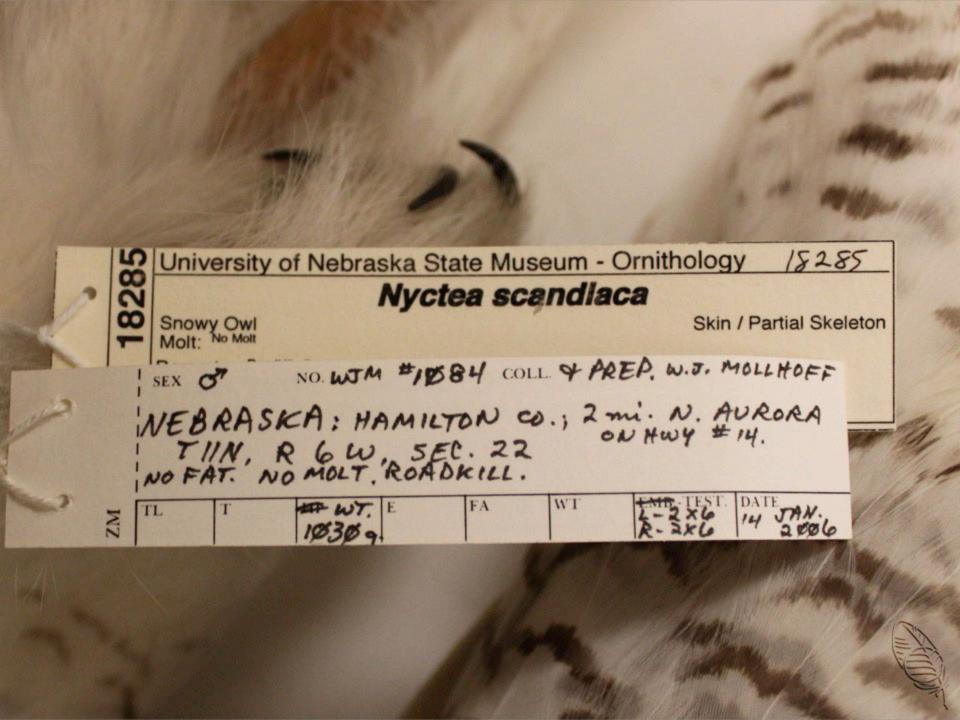


## Labels used by different museums















# TELD MUSEUM 3/0652

## NATURAL HISTORY

Cercomacra many Peru: dept. Madre de Dios; about 12 river km downstream from Shintuya along left back, Alto R. Madre de Dios J.W. Fitzpatrick coll. Alt. 420m 17 Aug. 1980

Eye medium no fat brown seenwith, Wt. 17.79 at 12-18' in deuse Bill black of, JWF 80-224, Skull fally preum about & km small- leaf bambook collected 10 min before
at same site Gon. & both testes 3xz mm Feet gray roice tape-recorded before collecting by JWF 0 Z



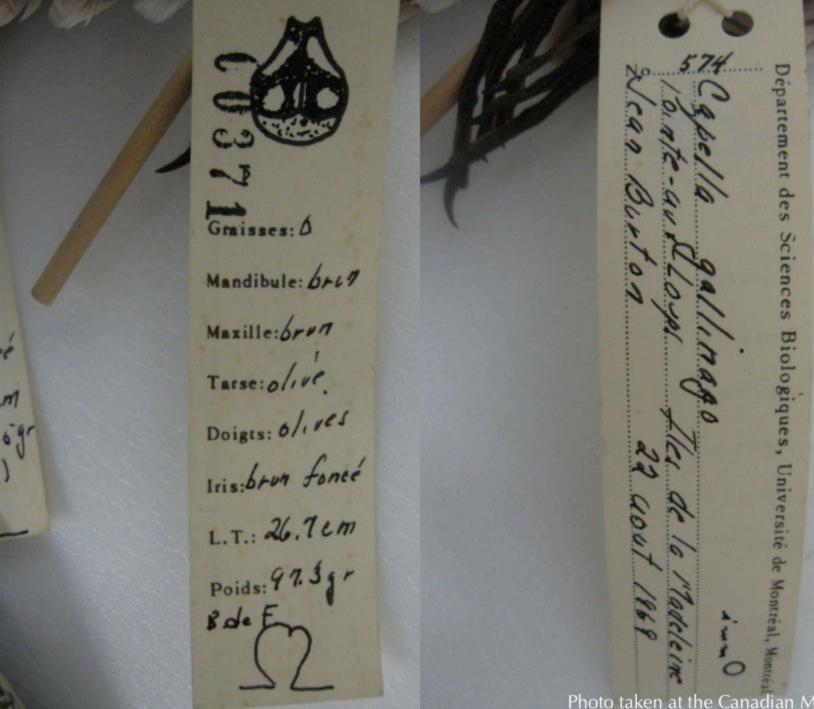
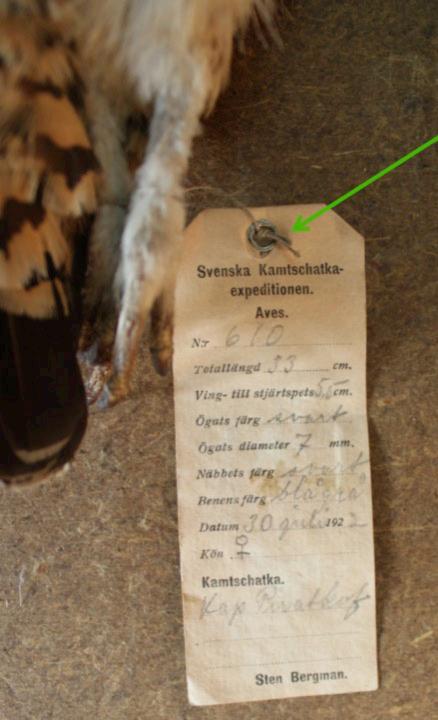


Photo taken at the Canadian Museum of Nature





Note the metal grommet on the expedition label.



Art Av. 786022 Corvus corone cornix Aug Kor AMD 1977. 12.27 Thr Samt B.Lindlef Hur Skluty Land Lake Vs. Plats & Griese, Fännsättra

Photos taken at the Naturhistorika Riksmuseet

4.				inyi Múzet	ım
( Sp	ecies	Grus	grus		
n Da	tum 2	DO5. 11	1. 29.	No.	
of Co	llector	Bank	ovics	Attila	

The folded end of this label reinforces the string hole.

Sex:	Kor:	Tömeg: 4,6 kg
sthossz	102 Szárny:	Farok:
Csüd: Mergezes Habitat:	Csőr (culmen):	Rocce Robert





Some museums use a different strategy. Before preparation, a small label is attached with the preparator's number or a numeric code.

Collection and prep notes are recorded in a field log or catalogue. Later, this information is entered into a database and a detailed label is printed and attached to the specimen. A danger is if the field log is lost, all the data may be gone.

YES		+	GWS 3395
	GWS 3375	+	GWS 3396
	GWS 3375	+	GWS 3396
•	GWS 3376	+	GWS 3397
•	GWS 3376	+	GWS 3397
•	GWS 3377	+	GWS 3398

#### Agelaius phoeniceus

round/wing 21 NOVEMBER 2005

WASHINGTON: King County, Vashon, 0.5 mi W, 10925 SW Bank

Testes: L 1.5 x 1, R 1 x 1 mm

Skull: 100 % pneumatized

66.5 gm (fresh), no fat; Molt: none; Misc: dead on road, transient flock of 50 at

feeder then in road

prep: R. E. Delles 08, salv: G. W. Shugart

Slater Museum, University of Puget Sound

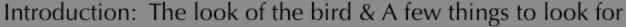
Note that salvaged is used rather than collected.



#### OTHER



## PRESENTATIONS IN THIS SERIES



Part 1 - Spread wings, a good way to start

Part 2 - Skinning your first bird

Part 3 - Other skinning methods

Part 4 - Stuffing your first bird

Part 5 - Other stuffing and pinning methods & Bird parts

Part 6 - Sexing birds using gonads (includes 2 quizzes with answer sheets)

Part 7 - Determining skull pneumatization & Skeleton preparation

Part 8 - DNA tissue sampling & Gut analysis

Part 9 - Washing skins for ectoparasites & Drying washed skins

Part 10 - Recording fat levels & Cleaning fatty or stinky skins

Part 11 - Flat skins, shmoos, and other types of study skins

Part 12 - Preserving eggs and shell fragments (in prep)

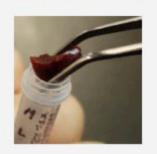
Part 13 - Determining cause of death (in prep)

Part 14 - Labelling: the most important step

To download another PowerPoint presentation in this series go to: <a href="http://www.beatymuseum.ubc.ca/research/birds">http://www.beatymuseum.ubc.ca/research/birds</a>











#### IN MEMORIUM



#### DR. REX KENNER

Former Curator of the Cowan Tetrapod Collection who encouraged me to begin this project.

Special thanks to Michel Gosselin, Gary Shutgart, Donna L Dittmann, Steve W Cardiff, Eve Szabo, Marian van der Meij, Thomas Labedz, Peter Mortensen, Steve Meji, Jean Woods, Ellen Paul, and all the wildlife rehabilitators, bird banders, pathologist, museum curators and collection managers who have helped and encouraged me to complete this project. I take full responsibility for any remaining mistakes.

Without the technical assistance of Derek Tan, this project would never have gotten off the drawing board. Dr. Darren Irwin kindly suggested and made the arrangements for this series to be posted on the Beaty Biodiversity Museum website. A huge thank you to the staff and volunteers at the Cowan Tetrapod Collection for providing space and creating a terrific work environment.

Unless otherwise indicted, all pictures were taken by the author at the Cowan Tetrapod Collection, University of British Columbia Beaty Biodiversity Museum.





