

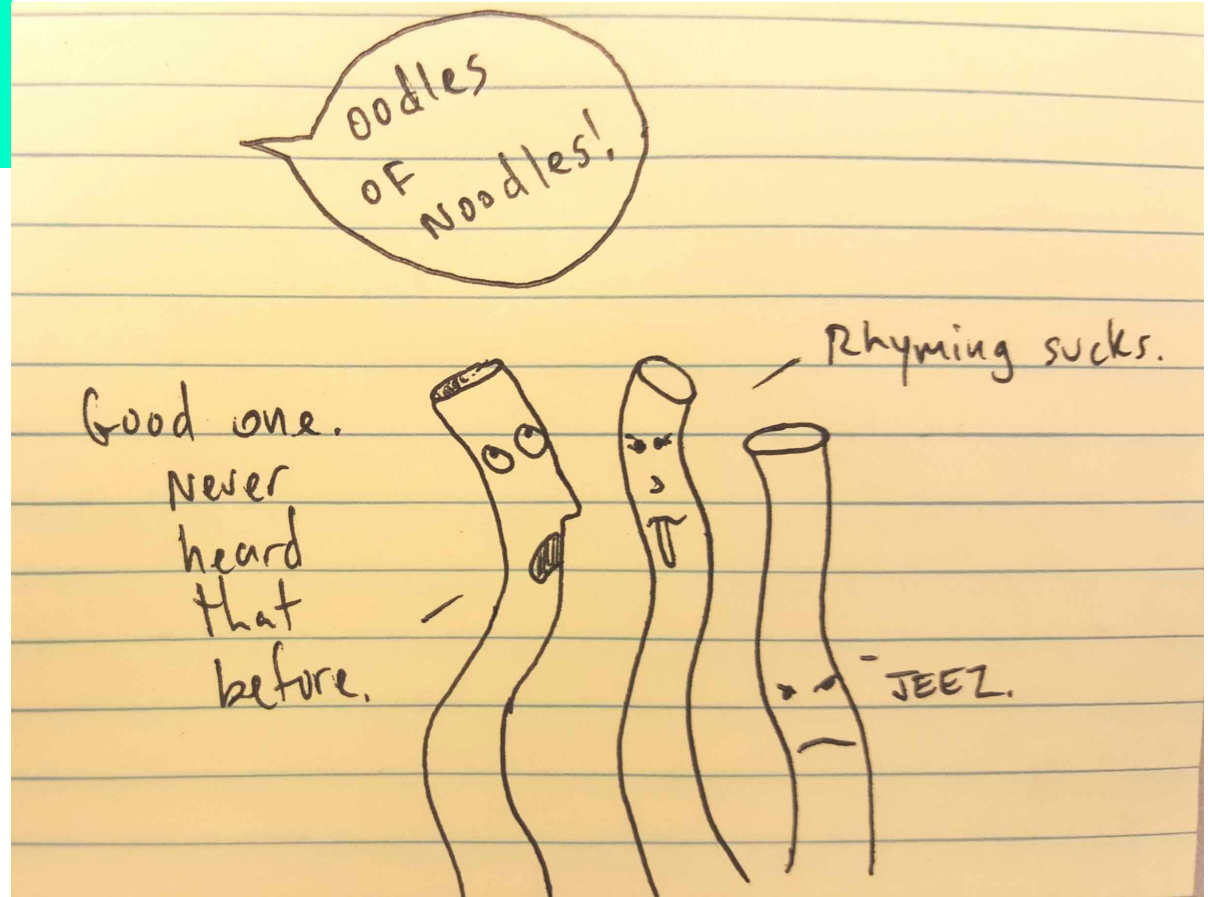
REFLECTIONS: WRITING THE NAR

A tour of my experience writing the NAR update.

WHAT IS THE NAR?

It is not:

Noodles
Against
Rhyming



OXFORD JOURNALS

Nucleic Acids Research

[ABOUT THIS JOURNAL](#)

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[SUBSCRIPTIONS](#)

[CURRENT ISSUE](#)

- Peer-reviewed scientific journal
- Published by Oxford University Press
- Annual publication for biological databases (since 1993)
- “Database Issue”
- Section: Human genome, model organisms, comparative genomics

TIMELIN

Mid June 2016 Official NAR invite, start time!

August 8th 1st draft done

Mid August Gdoc to Word, + refs/tables/images

September 15 1st “Final” submitted to NAR

September 30 NAR provides referee feedback

October 17 2nd “Final” submitted to NAR

That’s about 4 months of living in NAR-Land.

November 6 1st Proof (48 hours to approve)

November 14 2nd Proof submitted. THE REAL FINAL VERSION

Monday	Tuesday	Wednesday	Thursday	Friday
A8 v1 is done sent on Sunday, A7 to A&D	A9 Cath MLM	A10 10am mtg Review v1 (A&D) Cath starts v1 revision > v2 (Gdoc) (3.5 days)	A11 Cath finished v1 revision Cath sent out v2 (Gdoc) to A&D at 3:15pm	A12 A&D can start v2 review (Gdoc) (6 days) Cath MLM
A15	A16 Cath MLM Donna suggested rearranging Cath completed rearranging, v2.1	A17	A18 Cath starts v2 revisions > v3 (Word) will move to Word will add references	A19
A22	A23 v337 release Cath MLM	A24	A25	A26 Cath to finish v2 revision Cath to email v3 (in Word, w/refs) who to send v3 to?
A29 Cath vacation v3 (Word w/refs) is reviewed (5 days)	A30 Cath vacation v3 (Word w/refs) is reviewed	A31 Cath vacation v3 (Word w/refs) is reviewed	S1 Cath vacation v3 (Word w/refs) is reviewed	S2 Cath vacation v3 (Word w/refs) is reviewed v3 review is emailed to Cath by end of day
S5 HOLIDAY	S6 Cath starts v3 revision > v4 Cath completes v3 revision > v4 Emails v4 to Donna, Angie, Kate by end of day Cath MLM	S7 Editors start 'eagle eye' edits on v4 (3 days)	S8	S9 Editors complete v4 review Email to Cath by end of day Cath should have all final images
S12 Donna to complete review today. then, Cath starts v5 revision > v6	S13 Cath completes v6 FINAL Cath sends v5 FINAL to all authors, with deadline of 9/14 noon. v338 release	S14 One last 'eagle eye' read by Cath SUBMIT 2017 NAR by end of day NAR SUBMITTED	S15 ACTUAL SUBMISSION DEADLINE Cath MLM	S16 

CHAINSAW TIME

1st draft:

Body is 20 pages

Final:

Body is 10 pages



"I call it, 'Research Paper Lite.' It contains a third fewer facts, but you'd never know it."

PAGE LENGTH

My FINAL submission was in Microsoft Word, and after referee feedback it was 16 pages including references, not including the supplemental pages. Not counting references, and counting a 1-page table in the main manuscript, the total was 12 pages at 11 font in Word. I was never charged for extra pages, I think the '9 page' count is the outcome of the NAR formula prior to references and not counting supplementary materials. However, the NAR guide does not specify this.

As an example, my v2 equation without a table was: $6436 \text{ (words)} / 925 = 6.96 + 4 / 2.8 = 1.4 = 8.35$ pages, and this was before references (and prior to Word, and prior to more edits, and not counting supplementary materials).

I think the limit of "9 pages total from the equation" is probably more of a guideline, I remember Donna saying that the total page count was flexible, but I can't find that in writing. It may have been an exception for us because of Donna's relationship with the editor.

https://academic.oup.com/nar/pages/Ms_Prep_Submission

"An estimate of approximate final paper length can be carried out using the formula:

(Total no. words/925) + (Total no. figures and tables/2.8) = No. of printed pages. Please note that this formula is not always accurate and your paper may be longer than the calculation suggests. There are no page charges for papers of 9 pages or less."

GATHERING CONTENT

- Find all software and data changes (new & updated) over the last year (e.g., 9-1-15 - 8-5-16)
 - Assess importance, should it be included?
 - In last year's NAR? If so, don't include it.
1. Grant Progress Report & Official "Aims" for the year:
http://genomewiki.ucsc.edu/genecats/index.php/Category:Browser_PM
 2. Google Groups Announcements
 3. Public website, news index
 4. Redmine GB: Query by annual data range
 5. MySQL: Public Hubs query

CONTENT OUTLINE

Outline can be organized differently if desired.
Include new and updated annual changes

ABSTRACT, INTRODUCTION,

1. Genome assemblies
2. Data tracks - tip: remember to discuss auto-updated tracks
3. UI, web design (e.g., new gateway/index pages)
4. hgTracks (e.g., multi-region, keyboard shortcuts, public sessions)
5. Query/Table tools (e.g., hgTables, hgIntegrator)
6. Custom data (custom tracks, track hubs, assembly hubs, public hubs)
7. Alternative browsers (GBiB, mirrors)
8. Public MySQL Server
9. Utilities & Source Code
10. Support, training and documentation

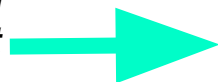
FUTURE PLANS, CONTACT INFO, ACKNOWLEDGEMENTS, FUNDING, REFERENCES

Table 1. New and updated UCSC-hosted genomes, 2015-2016

Scientific Name (common name)	Assembly Date	UCSC ID	Sequencing Center, NCBI Accession ID, Assembly Name
New Species			
<i>Apteryx australis mantelli</i> (brown kiwi)	Jun. 2015	aptMan1	Max-Plank Institute for Evolutionary Anthropology GCF_001039765.1 AptMant0
<i>Macaca fascicularis</i> (crab-eating macaque)	Jun. 2013	macFas5	Washington University (WashU) GCA_000364345.1 Macaca_fascicularis_5.0
<i>Galeopterus variegatus</i> (malayan flying lemur)	Jun. 2014	galVar1	Washington University (WashU) GCF_000696425.1 G_variegatus-3.0.2
Updated Species			
<i>Felis catus</i> (domestic cat)	Nov. 2014	felCat8	International Cat Genome Sequencing Consortium GCA_000181335.3

TABLES

I made in
Microsoft
Word



NAR
revised

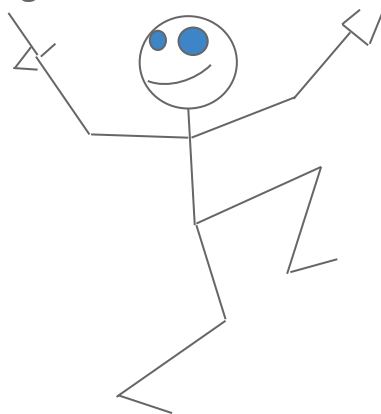


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Updated Species			
<i>Felis catus</i> (domestic cat)	November 2014	felCat8	International Cat Genome Sequencing Consortium GCA.000181335.3 Felis_catus_8.0

FIGURES

- Delegate them if you can
- Read the NAR instructions for proper format
- Many streams lead to the same ocean, use whatever format results in an image meeting NAR criteria.
- I did screenshots and ran them through an online utility to proper dpi:
 - 300 dpi for color or grayscale images
 - 600 dpi for line drawings



SUPPLEMENTARY MATERIALS

I had 3 figures and 2 tables as supplementary materials.

I converted each from a Google doc/spreadsheet to a PDF.

I then merged the PDFs into one doc with an online tool.

Easy.

The supplement stays as a PDF, NAR does not revise. It should be a small file size according to NAR.

REFERENCES

With ~50 references, I highly recommended using an online tool like

ZOTERO

Works as a Firefox plug-in with Microsoft Word

See my [guide for using Zotero](#)

And look up Zotero guides on YouTube

ensembl update - PubMed ... Chrome Web Store - Extens...

https://www.ncbi.nlm.nih.gov/pubmed/7?term=ensembl+update

NCBI Resources How To Sign in to NCBI

PubMed ensembl update Search

US National Library of Medicine National Institutes of Health Create RSS Create alert Advanced Help

Article types: Clinical Trial, Review, Customize...
 Text availability: Abstract, Free full text, Full text
 PubMed: Commons, Reader comments, Trending articles
 Publication dates: 5 years, 10 years, Custom range...
 Species: Humans, Other Animals
 Clear all Show additional filters

Format: Summary Sort by: Most Recent

Send to: Filters: Manage Filters

Search results
 Items: 1 to 20 of 21

Did you mean: [ensembl update](#) (49 items)

[g:Profiler-a web server for functional interpretation of gene lists \(2016 update\)](#)

1. Reimand J, Arak T, Adler P, Kolberg L, Reisberg S, Peterson H, Vilo J. Nucleic Acids Res. 2016 Jul 8;44(W1):W63-9. doi: 10.1093/nar/gkw199. PMID: 27098042 Free PMC Article [Similar articles](#)

[Ensembl Genomes 2016: more genomes, more complexity](#)

2. Kersey PJ, Allen JE, Armean I, Boddu S, Bolt BJ, Carvalho-Silva D, Christensen M, Davis P, Falin LJ, Grabmueller C, Humphrey J, Kerhornou A, Khobova J, Aranganathan NK, Langridge N, Lowy E, McDowall MD, Maheswari U, Nuhn M, Ong CK, Overduin B, Paulini M, Pedro H, Perry E, Spudich G, Tapanari E, Walts B, Williams G, Tello-Ruiz M, Stein J, Wei S, Ware D, Bolser DM, Howe KL, Kulesha E, Lawson D, Maslen G, Staines DM. Nucleic Acids Res. 2016 Jan 4;44(D1):D574-80. doi: 10.1093/nar/gkv1209. PMID: 26578574 Free PMC Article [Similar articles](#)

Find related data
 Database: Select Find items

Search details
 ensembl[All Fields] AND ("update"[Journal] OR "update"[All Fields] OR "update Univ S C Dep Music"[Journal] OR "update"[All Fields] OR "update Nacl Minor AIDS Counc"[Journal] OR Search See more...

Recent Activity
 Turn Off Clear
 ensembl update (21) PubMed

My Library Title Creator

msp:nci:2016-GenomeBrowser

Duplicate items Unfiled items Trash

3' Untranslated Regions
 Accident Prevention Adenine
 Adjustment Disorders Adult
 Aerospace Medicine Algorithms Alleles
 Alternative Splicing Altitude
 Anquina Pectoris Animals Anxiety Asthma

Enter one or more ISBNs, DOIs, or PMIDs to look up in the box below.

RIKEN Yokohama Campus
 Su et al.
 Auton et al.
 Blanchette et al.
 Zimin et al.
 Consortium
 ENCODE Project Consortium
 Consortium
 Sudmant et al.
 Milacic et al.
 Carithers et al.
 Deloukas et al.
 Hunter et al.
 Ambros
 Quinlan and Hall
 Quinlan and Hall
 Kent et al.
 Wu et al.
 Kent
 Kent
 Reece and Campbell
 Rehm et al.
 Kidera

143 items in this view

ZOTERO & WORD PLUG-IN

The image shows a screenshot of the Microsoft Word application interface. The menu bar at the top includes Apple, Word, File, Edit, View, Insert, Format, Font, Tools, Table, Window, and Help. The Help menu is open, showing options like 'About This Menu...', 'Zotero', and 'Sample Automator Workflows'. The Zotero submenu is also open, listing various actions such as 'Add Bibliography', 'Add Citation', 'Edit Bibliography', 'Edit Citation', 'Refresh', 'Remove Field Codes', and 'Set Document Preferences'. The document content is visible below the ribbon, showing the title 'The UCSC Genome Browser database: 2017 update' and the authors 'Cath Tyner¹, Galt P. Barber¹, Jonathan Casper¹, Hiram Clawson¹, Mark Diekhans¹, Christopher Eberhardt¹, Clinton M. Eickholt¹, David Gibson¹, Jais Nourani, Garryton¹'.

Word File Edit View Insert Format Font Tools Table Window Help

About This Menu...
Zotero
Sample Automator Workflows

Add Bibliography ^\B
Add Citation ^\A
Edit Bibliography ^\D
Edit Citation ^\E
Refresh ^\R
Remove Field Codes
Set Document Preferences ^\P

REVISED AFTER REFEREE REVIEW FINAL SUBMISSION The UCSC

Home Layout Document Elements Tables Charts SmartArt Review

Font Paragraph Styles Insert

Arial 11 A A Aa Ab

B I U ABC A² A₂ A ABC Z

No Styles Text Box Shape

The UCSC Genome Browser database: 2017 update

Cath Tyner¹, Galt P. Barber¹, Jonathan Casper¹, Hiram Clawson¹, Mark Diekhans¹,
Christopher Eberhardt¹, Clinton M. Eickholt¹, David Gibson¹, Jais Nourani, Garryton¹

SUBMISSION & PROOFS

The first submission takes a lot of time. Allow an hour or two. There are a lot of forms to complete. This can be done in advance.

NAR will contact you for acceptance, and lead you through a series of proofs to check the online version.

You will need to submit a cover letter with the submission. Here is my [example cover letter](#).

THE FUNDING SECTION

This was a challenging section to write.

Here are some suggestions from Ann.

Questions about funding went to

Nadine Gassner

Who referred me to

Rochelle Fuller

Who referred me to

Ned LeBlond

Who was helpful, but basically pointed me to the [NIH Report Tool website](#).

REFEREES

You must suggest 6 people to “peer review” your article.

They should be familiar with the browser, but not on the team.

They will provide feedback that you must respond to.

Here is a [doc of referee names](#) provided to me.

Here is an [example doc of referee feedback and my responses](#).

Here is a [funny video with a referee at 0:58](#).



LICENSE & PAYMENT

When accepted for publication, you need to

- 1) Choose and sign a copyright option “Agreement to Publish.” NAR will email with instructions.
 - a) Choose “Oxford Open Licence” “CC BY”
- 2) Then NAR will email you again to pay for the publication. About \$1,300!
 - a) NAR will send you a PDF invoice.
 - b) In 2016, the person to ask about payment was Gina Bentley. Send her the invoice. She will create a purchase order to complete payment. The PO gets dept approval. Then Gina works with UCSC Accounting to pay the invoice.

PUBLICIZE THE PUBLICATION

Announcements:

1. Public website, publications page
2. Google Groups Announcement
3. Mailing list?
4. Social Media
5. Optional: Submit “extended abstract” to NAR online Molecular Database Collection
6. Create a record in BIODBCORE (ask Brian Lee)
7. Add it to our wiki somewhere?
8. Update cite.html with newest NAR



TIPS

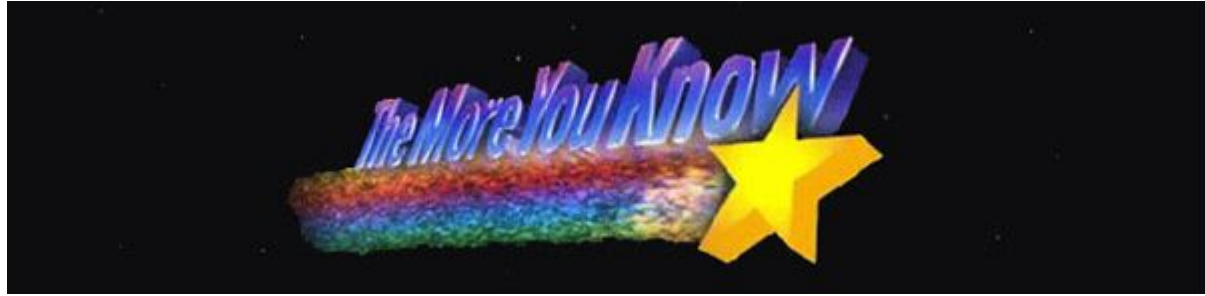
1. Start ASAP. It all takes more time than you think. I think so anyway!
2. Negotiate more “NAR time” with your manager if needed
3. Read other browser’s NAR updates, like Ensembl
4. If it’s not new, don’t include it. This refers to a long introduction or summaries of categories.
5. Forget about the past “template” and shorten the NAR
6. Supplemental data are a great way to include tables & images without counting against your allotted page count.
7. Have boundaries with internal reviews, do these in stages with small groups.
8. Make a calendar and work backward.
9. Start with a clear outline
10. Keep it simple



SUGGESTIONS

- Maybe add a flag in Redmine to include item in NAR?
- Look into reports from other browsers, possible change format to make our report even more concise. All of my referees suggested to not even mention anything “not new,” not even context such as how the repeat track is made.
- Why not start earlier? The next author could start early, read up on past reports, set up Zotero, write the intro, and write draft sections as new features are released.

FUN FACTS



- I have about 175 email threads related to the NAR.
- There were about 6 Google Doc versions before Word version.
- There were 6 versions in Word before the 1st submission.
- There were 4 other versions after submission before the

FINAL FINAL FINAL NO REALLY THIS IS THE REAL FINAL VERSION.doc