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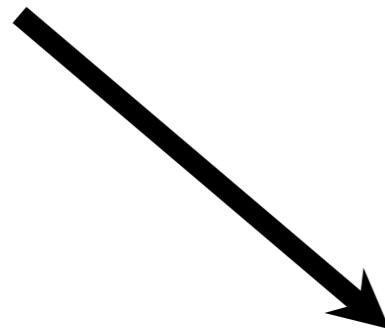
Genetic diversity and differentiation in populations of Japanese stone pine (*Pinuspumila*) in Japan

Naoki Tani, Nobuhiro Tomaru, Masayuki Araki, and Kihachiro Ohba

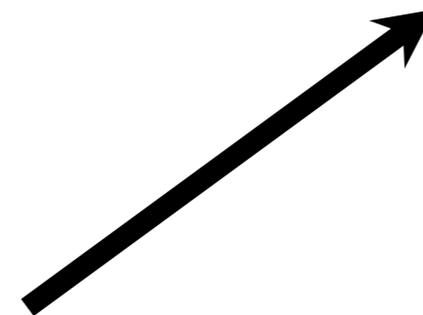
Abstract: Japanese stone pine (*Pinuspumila* Regel) is a dominant species characteristic of alpine zones of high mountains. Eighteen natural populations were sampled to study the distribution of genetic diversity. The extent of genetic diversity within this species was high ($H_T = 0.271$), and the genetic differentiation among populations was low. In previous studies of *P. pumila* in Russia, the genetic variation within the species was also high, but the genetic differentiation among populations was high. The genetic variation within each population tended, as a whole, to be similar to that of the populations in Japan. Genetic relationships among populations reflect the geographic locations, as shown by unweighted pair-group method with arithmetic mean.

Résumé : *Pinuspumila* Regel constitue au Japon une espèce dominante et caractéristique des zones alpines de hautes montagnes. Les auteurs ont étudié la répartition de la diversité génétique de cette espèce. Comparativement aux autres espèces conifériennes, la diversité génétique était élevée ($H_T = 0,271$) et la différenciation génétique entre les populations était faible. Dans des études antérieures de *P. pumila* en Russie, la variabilité génétique au sein de l'espèce était également élevée, mais la différenciation de population était élevée. La variabilité génétique au sein de chaque population tendait, dans l'ensemble, à être semblable à celle des populations du Japon. Les relations génétiques observées parmi les populations, telles qu'estimées à partir d'arbres représentatifs de la proximité géographique des populations.

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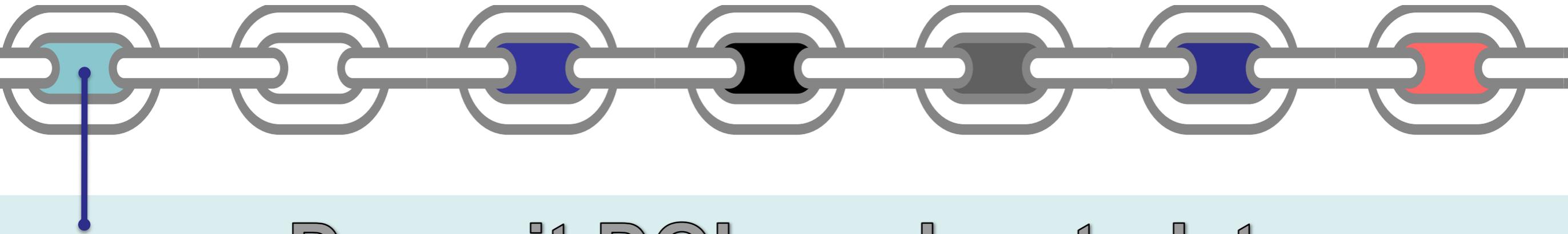


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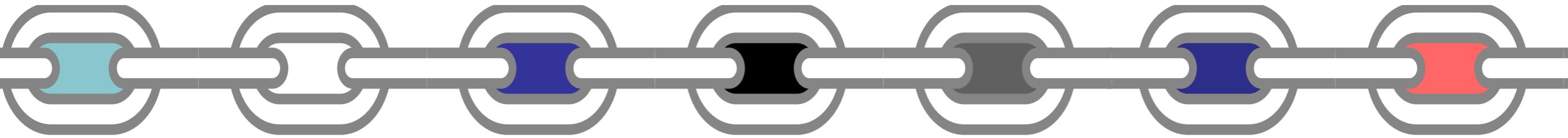
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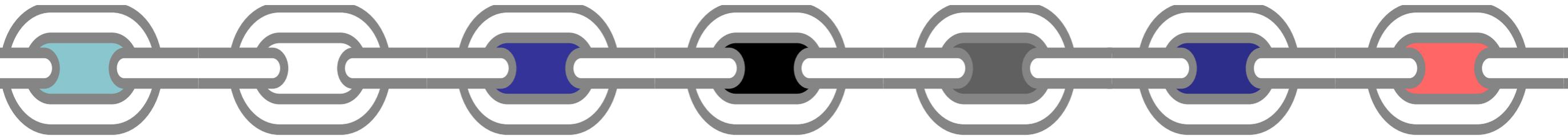
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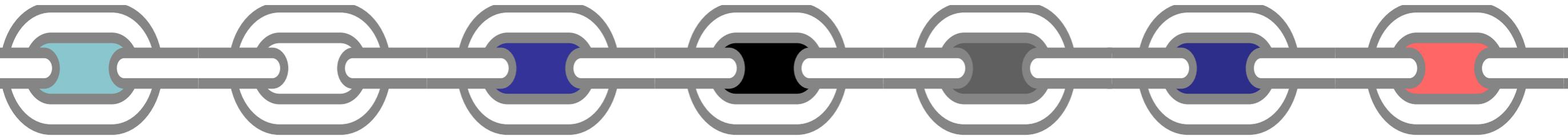
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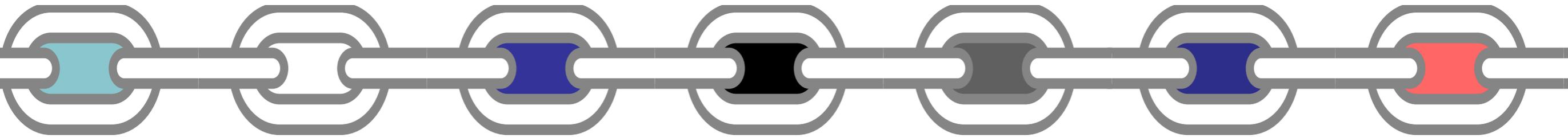
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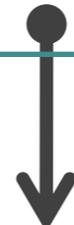
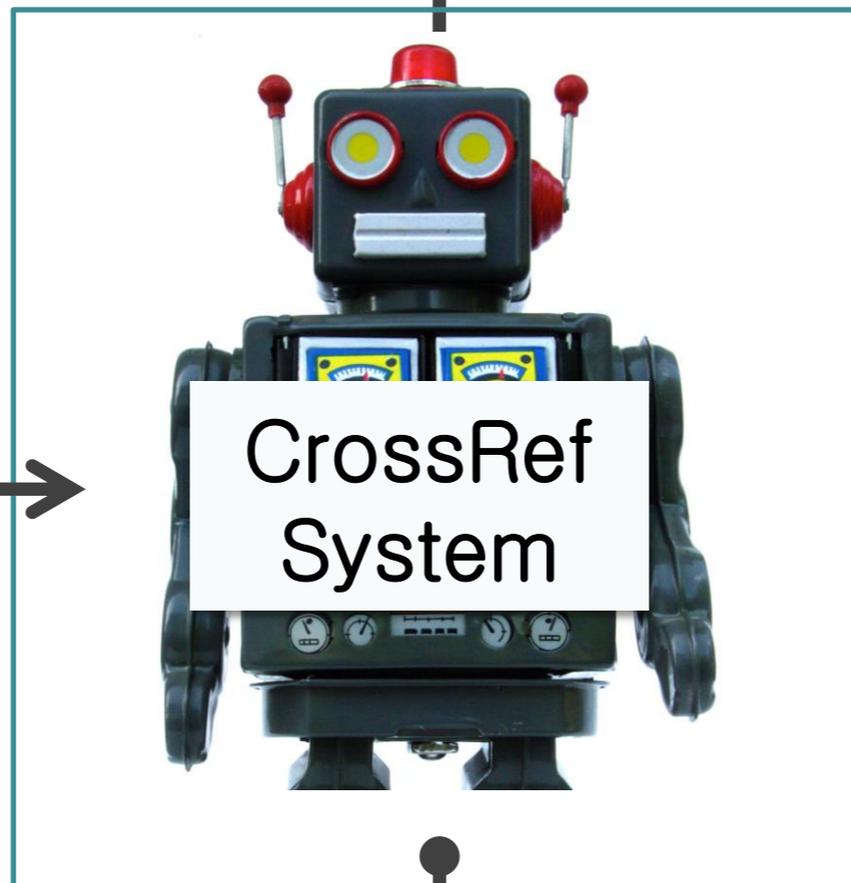
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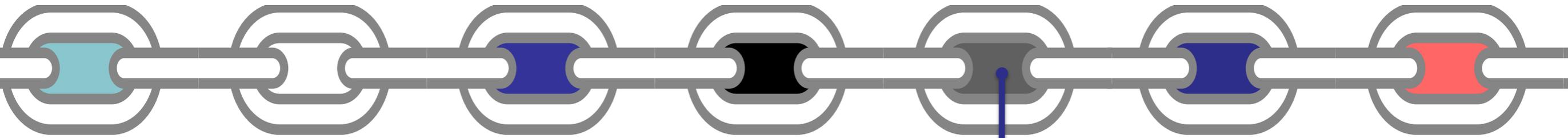
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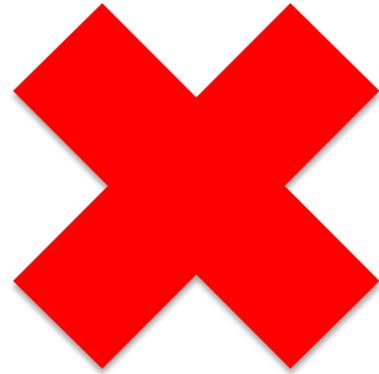
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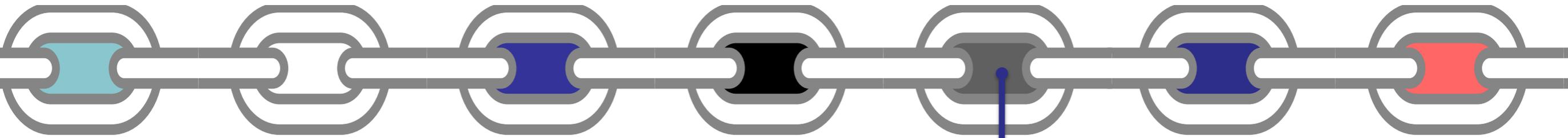


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Sheila M. Morrissey

Volume 14, Issue 1, Summer 2011

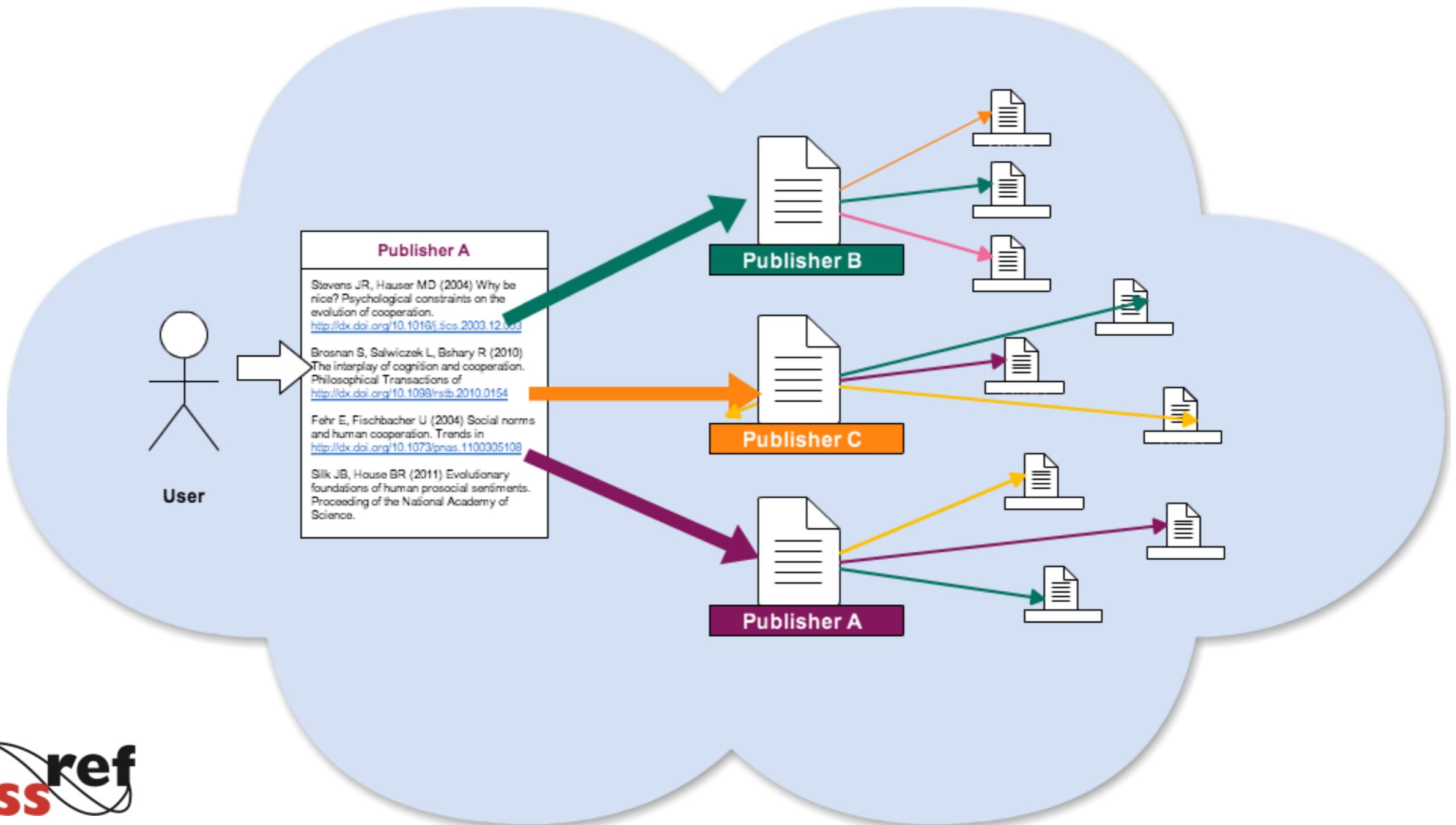
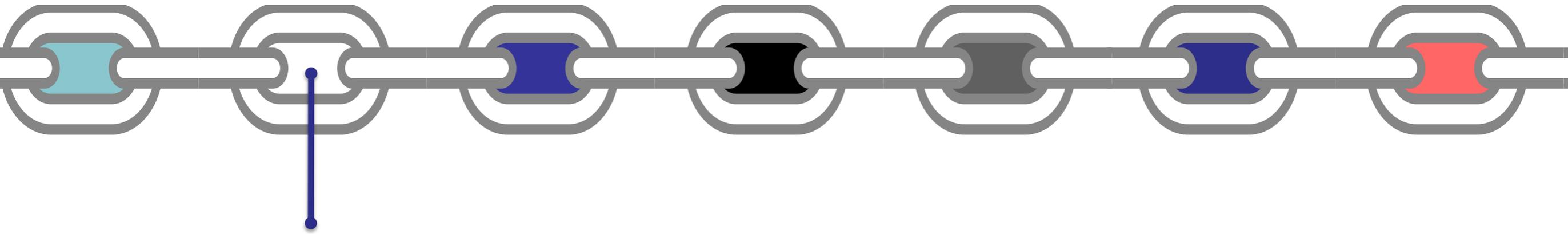
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Abstract

The promise of XML was that it would enable seamless, automated interchange of content, using standard tools, technologies, and shared XML vocabularies. The experience of many cultural memory institutions, however, makes it clear that there are limits to the interoperability of even standards-compliant XML content. This paper explores some sources of and ameliorations to this variation in the use of standard XML vocabularies.

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Ghosh, M.K., M.L. Harter. 2003. A viral mechanism for remodeling chromatin structure in G0 cells. Mol. Cell. 12:255–260, <http://doi.org/bm6>

Ghosh, M.K., M.L. Harter. 2003. A viral mechanism for remodeling chromatin structure in G0 cells. Mol. Cell. 12:255–260 [http://dx.doi.org/10.1016/S1097-2765\(03\)00225-9](http://dx.doi.org/10.1016/S1097-2765(03)00225-9)

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The quiescent, discrete, elongated aurora discovered by Kubota *et al.*¹, however, fit the bill. Their near co-rotation with the Earth also supports McIlwain's model, which Kubota *et al.* seem to have independently resurrected. If these findings and associations are confirmed, they could help to explain the unexpectedly strong connection between the solar wind, the aurora and the composition and electron density of Earth's upper atmosphere, even at latitudes that are nominally below the auroral oval.

References

1. Kubota, M., Nagatsuma, T. & Murayama, Y. *Geophys. Res. Lett.* doi:10.1029/2002GL016652 (2003). | [Article](#) |
2. McIlwain, C. E. in *Physics of Auroral Arc Formation* (eds Akasofu, S.-I. & Kan, J. R.) 173-174 (Am. Geophys. Union, Washington DC, 1981).
3. Wallis, D. D. *et al. J. Geophys. Res.* **84**, 1347-1360 (1979). | [ISI](#) | [ChemPort](#) |
4. Anderson, P. C. *et al. J. Geophys. Res.* **106**, 29585-29599 (2001). | [ISI](#) |
5. Foster, J. C. & Vo, H. B. *J. Geophys. Res.* doi:10.1029/2002JA009409 (2002). | [Article](#) | [ChemPort](#) |
6. Craven, J. D. *et al. Geophys. Res. Lett.* **21**, 2793-2796 (1994). | [ISI](#) |

10. Fteita D, Ali A, Alaluusua S. Molar-incisor hypomineralization (MIH) in a group of school-aged children in Benghazi, Libya. *Eur J Paediatr Dent* 2006; 7(2):92–95.
11. Hölttä P, Kiviranta H, Leppaniemi A. Developmental dental defects in children who reside by a river polluted by dioxins and furans. *Arch Environ Health* 2001; 56(6):522–8. [CrossRef](#) 
12. Jälevik B, Norén JG: Enamel hypomineralization of permanent first molars. A morphological study and survey of possible aetiological factors. *Int J Paediatr Dent* 2000;10:278–289. [CrossRef](#) 
13. Jälevik B, Klingberg G, Barregård L, Norén JG. The prevalence of demarcated opacities in permanent first molars in a group of Swedish children. *Acta Odontol Scand* 2001a; 59: 255–260. [CrossRef](#) 
14. Jälevik B, Norén JG, Klingberg G, Barregård L. Etiologic factors influencing the prevalence of demarcated opacities in permanent first molars in a group of Swedish children. *Eur J Oral Sci* 2001b; 109(4):230–4. [CrossRef](#) 
15. Jälevik B, Klingberg GA: Dental treatment, dental fear and behaviour management problems in children with severe enamel hypomineralization of their permanent first molars. *Int J Paediatr Dent* 2002; 12: 24–32.
16. Jälevik B, Dietz W, Norén JG. Scanning electron micrograph analysis of hypomineralized enamel in permanent first molars. *Int J Paediatr Dent* 2005;15:233–240. [CrossRef](#) 
17. Koch G, Hallonsten A-L, Ludvigsson N, et al. Epidemiologic study of idiopathic enamel hypomineralization in permanent teeth of Swedish children. *Community Dent Oral Epidemiol* 1987; 15: 279–285. [CrossRef](#) 



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E. A. Runquist and R. J. Havel: Acid hydrolases in early and late endosome fractions from rat liver. *J Biol Chem*, 266, 22557-22563 (1991)
PMid:1658000

G. Lammers and J. C. Jamieson: The role of a cathepsin D-like activity in the release of Gal ? 1- 4GlcNAc ? 2-6-sialyltransferase from rat liver Golgi membranes during the acute-phase response. *Biochem J*, 256, 623-631 (1988)
PMid:3146977 PMCID:1135455

H. Matsuba, T. Watanabe, M. Watanabe, Y. Ishii, S. Waguri, E. Kominami and Y. Uchiyama: Immunocytochemical localization of prorenin, renin, and cathepsins B, H, and L in juxtaglomerular cells of rat kidney. *J Histochem Cytochem*, 37(11), 1689-97 (1989)
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M. R. Buck, D. G. Karustis, N. A. Day, K. V. Honn and B. F. Sloane: Degradation of extracellular-matrix proteins by human cathepsin B from normal and tumour tissues. *Biochem J*, 282 (Pt 1), 273-8 (1992)
PMid:1540143 PMCID:1130919

K. Roberg and K. Ollinger: Oxidative stress causes relocation of the lysosomal enzyme cathepsin D with ensuing apoptosis in neonatal rat cardiomyocytes. *Am J Pathol*, 152(5), 1151-6 (1998)
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P. Pierre and I. Mellman: Developmental regulation of invariant chain proteolysis controls MHC class II trafficking in mouse dendritic cells. *Cell*, 93(7), 1135-45 (1998)
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H. Matsuba, T. Watanabe, M. Watanabe, Y. Ishii, S. Waguri, E. Kominami and Y. Uchiyama: Immunocytochemical localization of prorenin, renin, and cathepsins B, H, an
M. R. Buck, D. G. Karustis, N. A. Day, K. V. Honn and B. F. Sloane: Degradation of extracellular-matrix proteins by human cathepsin B from normal and tumour tissues.
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PAGE 1 OF 314,401 RESULTS

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Published Jul 1988 in Journal of Climate , volume 1 , issue 7 , on pages 715 to 728

Gary D. Clow, Christopher P. McKay, George M. Simmons, Robert A. Wharton

[dx.doi.org/10.1175/1520-0442\(1988\)001<0715:COAPSR>2.0.CO;2](https://doi.org/10.1175/1520-0442(1988)001<0715:COAPSR>2.0.CO;2) [More](#)

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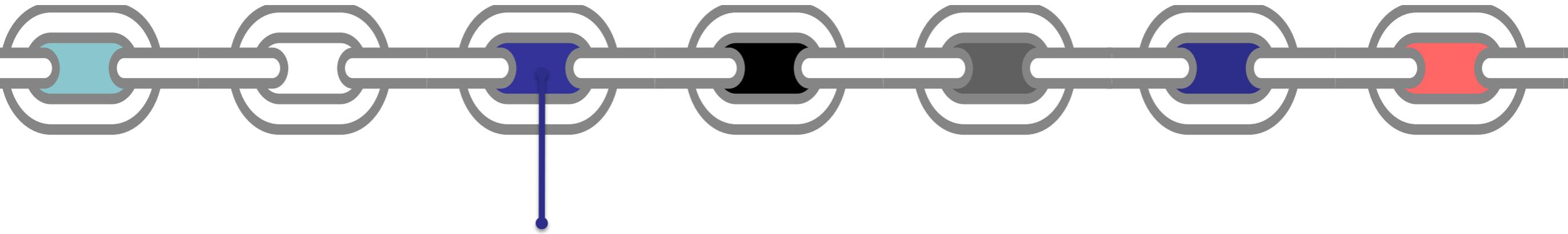
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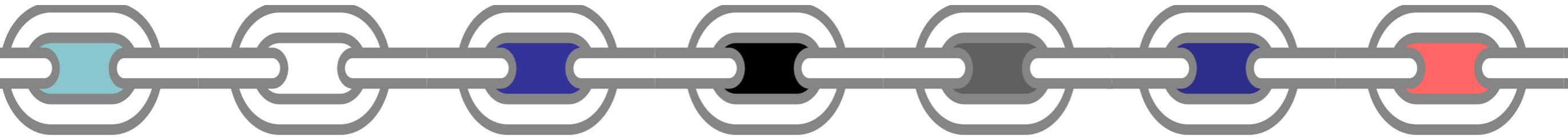
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Sedimentation in ice-covered Lake Hoare, Antarctica



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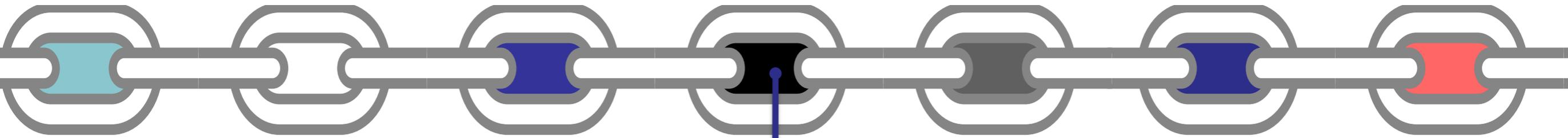
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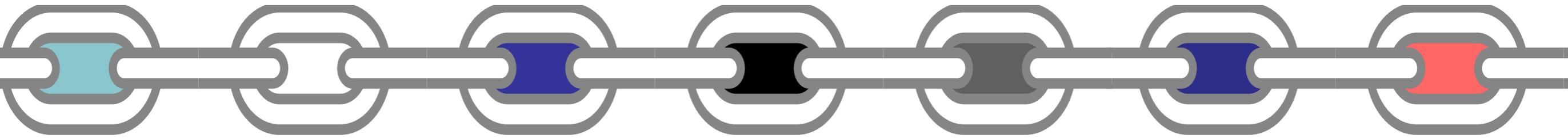
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To make changes to your metadata, [resubmit your entire deposit](#).

There is no charge for updating your DOIs – we encourage you to update them as often as needed.

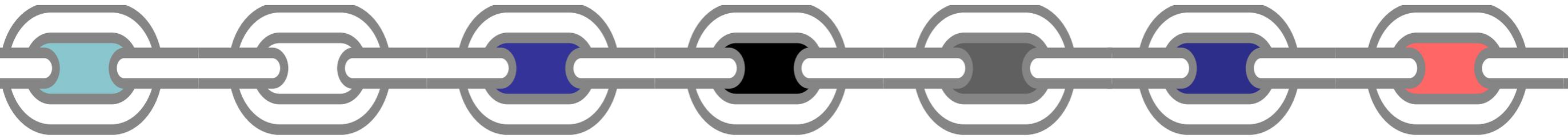


Maintaining Journal Titles

- Title and ISSN combinations are determined by the publisher.
- A valid ISSN is required for all journal titles
- The title / ISSN combination in your deposit must match the title / ISSN combination in our system.
- If a title changes, a new ISSN is required
- Journals should be deposited under the original title

Title list: <http://www.crossref.org/titleList/>

Title transfer policies: <http://help.crossref.org/#ID5855>



Reports!

Recurring reports:

- Resolution Report (email)

As-needed reports:

- [Conflict](#)
- DOI Error Report (email)
- Schematron Report (email)

Always available:

- [Depositor Report](#)
- [Status Report](#)
- [Go-live report](#)
- [Title list](#)

Tools

- [XML Parser](#)
- [Test system: http://test.crossref.org](http://test.crossref.org)
- [Deposit Harvester](#)

YOUR TOP TEN DOIS 2009-11

Number	Top 10 DOIs	Resolutions to DOI
1	10.1177/0269881108099672	269
2	10.1177/1077558706293634	255
3	10.5555/0743558403254784	239
4	10.5555/0042098007085969	192
5	10.5555/0759106310387721	186
6	10.5555/0022167802250568	174
7	10.5555/0957154X04039343	173
8	10.5555/1057S67711401205	171
9	10.5555/0829573511414005	168
10	10.5555/1403494811404278	164
11	10.5555/1403494811404279	164
12	10.5555/1403494811404277	164
13	10.5555/1010539510379393	164
14	10.5555/1420362X11409458	164
15	10.5555//1368430207084849	164
2010-07	238,213	

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475,027
460,296
13,798
933
156,864
152,695
3,883
286

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More info: [Resolution Report](#)

DOI Error report (emailed nightly as needed)

- compiled from reports submitted by end users
 - emailed nightly to technical contact

Reasons for DOI Error:

- a DOI has been published but not deposited
- the published DOI does not match the deposited DOI
- the end user misinterpreted or mistyped a DOI (i.e. confusing 1 for l or 0 for O)

Where to find help:

- Help documentation: <http://help.crossref.org>
- CrossRef support: email support@crossref.org or visit <http://support.crossref.org>
- Webinars: <http://www.crossref.org/01company/webinars.html>

Staying up to date:

- Announcements forum: <http://support.crossref.org/forums/147622-announcements>
subscribe via [RSS](#) or email
- [CrossRef Quarterly](#): CrossRef newsletter
- [CrossRef Labs](#): new and experimental tools and initiatives