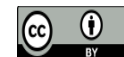




Crossref: infrastructure and services for scholarly comms

Presented at a MedComms Networking event
4 January 2017

www.MedCommsNetworking.com



We are Crossref, a not-for-profit membership organization for scholarly publishing, working to make content easy to find, cite, link and assess. We do it in five ways: rallying the community; tagging metadata; running a shared infrastructure; playing with new technology; and making tools and services to improve research communications.

It's as simple—and as complicated—as that.



About us

- Founded in 2000 with 12 publishers
- Not for profit membership organization
- 30 staff based in Oxford, UK and Boston, USA
 - outreach, tech, development, product, operations
- Publishers, libraries, sponsors, affiliated organizations, researchers, all use our services.

Crossref overview

- 5500 publisher members
- Metadata store of over 85 million scholarly content items
- Persistent citation linking
- Funder identifiers
- Report and display corrections & retractions
- Check manuscripts for similarities
- Open Metadata API & Search

Publishers join

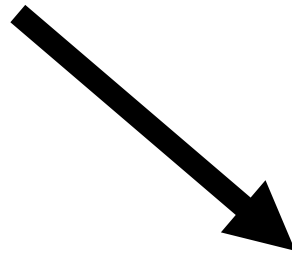
- To help their content get discovered
- Show people where it's located and update that if the content moves
- Drives traffic to publications
- Lets them participate in other collaborative services

Crossref DOIs help to uniquely identify and therefore link content



User clicks on CrossRef DOI reference link in Journal A

Tani, N., N. Tomaru, M. Araki, AND K. Ohba. 1996. Genetic diversity and differentiation in populations of Japanese stone pine (*Pinus pumila*) in Japan. *Canadian Journal of Forest Research* 26: 1454–1462. [\[CrossRef\]](#)



Crossref DOI directory returns URL

User accesses cited article in Journal B

Canadian Journal of Forest Research

Canadian access to full text made available through the Depository Services Program
Can. J. For. Res. 26(8): 1454–1462 (1996) | doi:10.1139/x26-162 | © 1996 NRC Canada

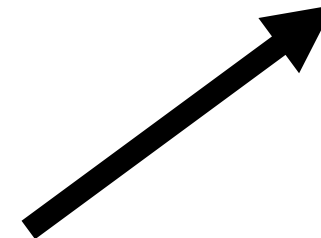
Genetic diversity and differentiation in populations of Japanese stone pine (*Pinus pumila*) in Japan

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

Abstract: Japanese stone pine (*Pinus pumila* Regel) is a dominant species characteristic of alpine zones of high mountains. Eighteen natural populations of genetic diversity. The extent of genetic diversity within this species was high ($H_T = 0.271$), and the genetic differentiation among populations. In previous studies of *P. pumila* in Russia, the genetic variation within the species was also high, but the genetic differentiation among populations. The genetic variation within each population tended, as a whole, to reflect the geographic distribution and ecological differences between the two countries. The genetic variation within each population tended, as a whole, to reflect the geographic distribution and ecological differences between the two countries. The genetic variation within each population tended, as a whole, to reflect the geographic distribution and ecological differences between the two countries. The genetic variation within each population tended, as a whole, to reflect the geographic distribution and ecological differences between the two countries.

Résumé : *Pinus pumila* Regel constitue au Japon une espèce dominante et caractéristique des zones alpines de hautes montagnes. Les auteurs ont étudié la diversité génétique et la différenciation génétique de cette espèce. Comparativement aux autres espèces conifères, la diversité génétique était élevée ($H_T = 0.271$) et la différenciation génétique était élevée chez les populations russes de *P. pumila* ont aussi révélé un niveau élevé de diversité génétique, mais la différenciation de population était élevée au niveau de la distribution géographique et de différences écologiques entre les deux pays. En général, la variabilité génétique était représentative de la proximité géographique des populations.

[Traduit par la Rédaction]





**85,000,000
content items**

Content types

- Journals
- Books
- Conference proceedings
- Standards
- Technical reports
- Working Papers
- Theses and dissertations
- Components (figures, tables)
- Datasets (supplementary data)
- Databases
- Posted content (includes preprints)

Publishers

Crossref

Basic metadata

Titles, authors, ISSNs, ISBNs

Journal articles, conference proceedings, data, standards

Funding Information

Funder identifiers, award numbers

License Information

License URIs (NISO ALI)

Full-text locations

URIs direct to full-text articles (used in TDM)

Significant updates

Retractions, corrections

ORCID^s

Metadata Out

- Search and indexing services
 - On Crossref site
 - On partner sites (e.g. ORCID)
- Enhanced Crossref metadata services
 - Organizations that want to supplement metadata from other sources
 - Organizations providing citation metrics
 - Document delivery providers
 - Discovery services
 - Search engines
 - Content aggregators

Thank you!

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