

For Authors

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Preparing your Submission

This section will help you when preparing your manuscript for initial submission and resubmission to *Nature Genetics*. Please ensure that you familiarise yourself with our editorial policies as outlined in this section before submitting your work.

For information on our aims & scope, as well as our content types, please refer to the About the journal section.

Once you have prepared your manuscript, the How to submit section will provide you with information on the submission system, while our editorial criteria and processes are described in the Peer review and publication section.

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Editorial and publishing policies

As part of Nature Research, *Nature Genetics* follows a number of common policies as detailed in our authors and referees site and we request that our authors and prospective authors abide by them.

In particular, when you submit a manuscript to *Nature Genetics* its content must not significantly overlap with any other papers from you or your co-authors' groups that are under consideration or in press at other journals, with the exception of conference abstracts. We do, however, support the posting of preprints.

If you submit a related manuscript to any other journals while the submission to *Nature Genetics* is under consideration, you must send us a copy of the related manuscript and details of its progress towards publication. We reserve the right to decline publication of a paper even after it has been accepted if it becomes apparent that there are serious problems with the scientific content or violations of our publishing policies.

Some of our policies you need to familiarise yourself with are listed below:

- Author responsibilities
- Duplicate publication
- Confidentiality and pre-publicity
- Plagiarism and fabrication
- Competing interests
- Licence agreement and author copyright
- Embargo policy and press releases

- Availability of materials and data
- Digital image integrity and standards
- Refutations, complaints and corrections
- Compliance with open access mandates
- Security concerns
- Use of experimental animals and human subjects

Initial submission

We do not request manuscripts to be formatted in *Nature Genetics*'s style for initial submissions, as long as the study is described in a fashion that is suitable for editorial assessment and peer review.

You can submit either a single PDF file that includes the manuscript text and any display items, or separate files for text, figures and tables. Besides the manuscript files, you should also provide a cover letter addressed to the editors and any supplementary information.

Double blind peer review

If you want to participate in double-blind peer review, prepare your manuscript in a way that conceals the identities of all the authors and tick the appropriate box during online submission. We recommend that authors refer to our double-blind peer review guidelines when preparing a double-blind peer review manuscript. Note that editors do not ensure that the paper is properly anonymized; that is the authors' responsibility.

Presubmission inquiries

If you are unsure whether your paper is in scope for *Nature Genetics*, you can submit a pre-submission enquiry, providing at least an abstract of your work.

Manuscript files

The manuscript file must contain the following essential information:

- Names and affiliations of all co-authors. The primary affiliation for each author should be the institution where the majority of their work was done. If an author has subsequently moved, the current address may also be stated. The corresponding author should be identified with an asterisk.
- A detailed description of the findings of the work (by means of text and display items), including sufficient information on methods and materials which would enable replication of the study by a fellow expert. As a guideline, the text should be structured in broad sections (abstract, introduction, results, conclusions, methods).
- References to previous works.

If the manuscript includes personal communications, please provide a written statement of permission from any person who is quoted. E-mail permission messages are acceptable.

Our complete formatting requirements are detailed below, and information on sections, length limits and figure limits is detailed here according to content type. While we do not ask you to comply with these requirements for initial submissions, they will be enforced prior to acceptance of the work. We accept manuscripts in PDF, Word or TeX/LaTeX formats; if you are using TeX/LaTeX, we prefer that you submit compiled PDFs up until the pre-acceptance stage. All textual content should be provided in a single file; figures should be provided in individual files (see below).

Supplementary information

Any information (including display items) not directly related to the description of the main findings, but needed to properly understand and replicate the study, should be included in a supplementary information file, which can be submitted as a PDF, Word or TeX/LaTeX document. The supplementary information document will be sent to peer reviewers alongside the manuscript file.

Language

Papers submitted to *Nature Genetics* should be accessible to non-specialists; you should ensure that your findings are communicated clearly. Although a shared basic knowledge of genetics may be assumed, please bear in mind that the language and concepts that are standard in one subfield may be unfamiliar to colleagues working in another area. Thus, technical jargon should be avoided as far as possible and clearly explained where its use is unavoidable. Abbreviations should be kept to a minimum and should be defined at their first occurrence. The background, rationale and main conclusions of the study should be clearly explained. Titles and abstracts in particular should be written in language that will be readily intelligible to any scientists.

No paper will be rejected for poor language. However, if you would like assistance with writing your manuscript, you can consider asking colleagues for their input and/or use a professional editing service such as those provided by our affiliates Nature Research Editing Service or American Journal Experts. The use of a language editing service has no bearing on editorial decisions and is not a requirement for publication.

Life sciences reporting guidelines

To improve the transparency of reporting and the reproducibility of published results, authors of life sciences research articles must provide a completed reporting summary that will be made available to editors and reviewers during manuscript assessment. The reporting summary will be published with all accepted manuscripts.

All authors must also complete an editorial policy checklist to ensure compliance with Nature Research editorial policies.

Please note: because of the advanced features used in these forms, you must use Adobe Reader to open the documents and fill them out.

Guidance and resources related to the use and reporting of statistics are available [here](#).

Cover letter

Providing a cover letter can help you conveying the work's importance to the editors and explain why you consider it appropriate for the diverse readership of *Nature Genetics*. You must disclose details of any related manuscripts that you have under consideration or in press elsewhere, and you can provide suggested reviewers to include, or ask individuals to be excluded from peer review (explaining why). Finally, you should indicate whether you have had any prior discussions with a *Nature Genetics* editor about the work described in the manuscript. Please note that you must provide a cover letter that includes the affiliation and contact information for all authors if choosing the double-blind peer review option. The cover letter is not transmitted to peer reviewers.

Formatting

The manuscript text file should include the following parts, in order: a title page with author names, affiliations and contact information (the corresponding author should be identified with an asterisk); the sections required for each content type, then Acknowledgements (optional), Author Contributions, Competing Interests statement, References, Figure Legends, and Tables.

Word

Nature Genetics does not use a manuscript template for Word documents. The manuscript file should be formatted as double-spaced, single-column text without justification. Pages should be numbered using an Arabic numeral in the footer of each page. Standard fonts are recommended and the 'symbols' font should be used for representing Greek characters.

TeX/LaTeX

To submit a TeX/LaTeX file, please use any of the standard class files such as `article.cls`, `revtex.cls` or `amsart.cls`. All textual material should be provided as a single file in default Computer Modern fonts. Please avoid non-standard fonts and packages and remove all personal macros before submitting. For graphics, we recommend `graphicx.sty`. Please use numerical references only for citations, and include the references within the manuscript file itself. If you wish to use BibTeX, please copy the reference list from the `.bbl` file, paste it into the main manuscript `.tex` file, and delete the associated `\bibliography` and `\bibliographystyle` commands. Before submission, please ensure that the complete `.tex` file compiles successfully on your own system with no errors or warnings. There is no need to spend time visually formatting the manuscript: our style will be imposed automatically when the paper is prepared for publication.

Methods

The Methods section should be written as concisely as possible but should contain all elements necessary to allow

interpretation and replication of the results. The Methods sections of all original research papers will appear in all online versions of the article.

Authors can deposit the step-by-step protocols used in their study to Protocol Exchange, an open resource maintained by Nature Research. Protocols deposited by the authors will be linked to the Online Methods section upon publication.

The Methods section should be subdivided by short bold headings referring to methods used and we encourage the inclusion of specific subsections for statistics, reagents and animal models. If further references are included in this section, the numbering should continue from the end of the last reference number in the rest of the paper and the list should accompany the additional Methods at the end of the paper.

Acknowledgements

Acknowledgements should be brief, and should not include thanks to anonymous referees and editors, or effusive comments. Grant or contribution numbers may be acknowledged.

Author contributions

Nature Genetics requires an Author Contribution statement as described in the Authorship section of our Editorial policies.

Competing interests

Submission of a signed Competing Interests Statement is required for all content of the journal. This statement will be published at the end of Letters, Articles, Reviews and Progress articles, whether or not a competing interest is reported. For all other content types, a statement will be published only if a competing interest is reported. In cases where the authors declare a competing interest, a short statement to that effect is published as part of the article, which is linked to a more detailed version available online.

References

References are numbered sequentially as they appear in the text, tables, figure legends and online Methods. Only one publication is given for each number. Only papers that have been published or accepted by a named publication or recognized preprint server should be in the numbered list. Meeting abstracts that are not published and papers in preparation should be mentioned in the text with a list of authors (or initials if any of the authors are co-authors of the present contribution). Published conference abstracts, numbered patents and research datasets that have been assigned a digital object identifier may be included in the reference list. URLs for web sites should be cited parenthetically in the text, not in the reference list; articles in formal, peer-reviewed online journals should be included in the reference list. Grant details and acknowledgments are not permitted as numbered references. Footnotes are not used.

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followed by a comma and initials (followed by full stops) of given names. Article titles should be in Roman text, the first word of the title should be capitalized and the title written exactly as it appears in the work cited, ending with a full stop. Book titles should be given in italics and all words in the title should have initial capitals. Journal names are italicized and abbreviated (with full stops) according to common usage. Volume numbers and the subsequent comma appear in bold.

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Hao, Z., AghaKouchak, A., Nakhjiri, N. & Farahmand, A. Global Integrated Drought Monitoring and Prediction System (GiDMaPS) data sets. figshare <http://dx.doi.org/10.6084/m9.figshare.853801> (2014).

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Figure legends

Figure legends for Articles or Letters begin with a brief title for the whole figure and continue with a short description of each panel and the symbols used, focusing on describing what is shown in the figure and de-emphasizing methodological details. The meaning of all error bars and how they were calculated should be described. Each legend should total no more than 250 words.

Tables

Please submit tables at the end of your text document (in Word or TeX/LaTeX, as appropriate). Tables that include statistical analysis of data should describe their standards of error analysis and ranges in a table legend.

Figures

Figures should be numbered separately with Arabic numerals in the order of occurrence in the text of the manuscript. One- or two-column format figures are preferred. When appropriate, figures should include error bars. A description of the statistical treatment of error analysis should be included in the figure or scheme legend.

Figure lettering should be in a clear, sans-serif typeface (for example, Helvetica); if possible, the same typeface in approximately the same font size should be used for all figures in a paper. Use symbol font for Greek letters. All display items should be on a white background, and should avoid excessive boxing, unnecessary colour, spurious decorative effects (such as three-dimensional 'skyscraper' histograms) and highly pixelated computer drawings. The vertical axis of histograms

should not be truncated to exaggerate small differences. Labelling must be of sufficient size and contrast to be readable, even after appropriate reduction. The thinnest lines in the final figure should be no smaller than one point wide. Reasonable requests to enlarge figures will be considered, but editors will make the final decision on figure size. Authors will see a proof of figures.

Figures divided into parts should be labelled with a lower-case bold a, b, and so on, in the same type size as used elsewhere in the figure. Lettering in figures should be in lower-case type, with only the first letter of each label capitalized. Units should have a single space between the number and the unit, and follow SI nomenclature (for example, ms rather than msec) or the nomenclature common to a particular field. Thousands should be separated by commas (1,000). Unusual units or abbreviations should be spelled out in full or defined in the legend. Scale bars should be used rather than magnification factors, with the length of the bar defined in the legend rather than on the bar itself. In legends, please use visual cues rather than verbal explanations, such as "open red triangles".

Authors are encouraged to consider the needs of colorblind readers (a substantial minority of the male population) when choosing colors for figures. Many colorblind readers cannot interpret visuals that rely on discrimination of green and red, for example. Thus, we ask authors to recolor green-and-red heatmaps, graphs and schematics for which colors are chosen arbitrarily. Recoloring primary data, such as fluorescence or rainbow pseudo-colored images, to color-safe combinations such as green and magenta, turquoise and red, yellow and blue or other accessible color palettes is strongly encouraged.

Unnecessary figures should be avoided: data presented in small tables or histograms, for instance, can generally be stated briefly in the text instead. Figures should not contain more than one panel unless the parts are logically connected; each panel of a multipart figure should be sized so that the whole figure can be reduced by the same amount and reproduced on the printed page at the smallest size at which essential details are visible.

When a manuscript is accepted for publication, we will ask for high-resolution figure files, possibly in a different electronic format. This information will be included in the acceptance letter. See below for details of digital image production and submission.

Supplementary information

Supplementary information should be submitted with the manuscript and will be sent to referees during peer review. Supplementary information is not copy-edited by *Nature Genetics*, so authors should ensure that it is clearly and succinctly presented, and that the style and terminology conform with the rest of the paper. The following guidelines detail the creation, citation and submission of supplementary information. Please note that modification of supplementary information after the paper is published requires a formal correction, so authors are encouraged to check their supplementary information carefully before submitting the final version.

Nature Research recognizes the utility and value of Supplementary data. However, the proliferation of such data has in many cases made the reading of a manuscript confusing and unwieldy. In response to our authors, referees and readers, we have therefore decided to limit the volume of Supplementary Information, specifically Supplementary Figures in research papers. The number of Supplementary Figures should not exceed the number of main figures in the article, and each Supplementary Figure should fit one printable 8.5 x 11 inch page. While we would encourage authors to be selective in including as other types of supplemental data, such as Supplementary Tables and Videos, no restrictions will currently apply to these data types.

In general, only Supplementary data that supports the main conclusions of the paper should be included. Supplementary data should be presented in a logical order and related to a main text figure, wherever possible. Any supplementary data that extend beyond the conceptual scope of the main article may be removed at the editor's discretion.

Designate each item as Supplementary Table, Figure, Video, Audio, Notes, Data, Discussion or Equations. Number Supplementary Tables and Figures as, for example, "Supplementary Table 1". This numbering should be separate from that used in tables and figures appearing in the main printed article. Supplementary Notes should not be numbered and can have an optional title. Please provide a title for Supplementary Tables and a title and a caption for Supplementary Figures, Supplementary Video and Supplementary Notes. The latter should only be used in consultation with the editors for specific elements best presented in Supplementary Information, such as standalone descriptions related to methods (for example algorithm description, compound synthesis and characterization). Please note that Supplementary Methods will no longer be allowed.

Refer to each piece of supplementary information at least once within the text of the main article, at the appropriate point(s). Be sure to include the word "Supplementary" each time one is mentioned. Please do not refer to individual panels of supplementary figures.

Where there is supplementary information to be included exclusively in the online version of a paper published in *Nature Genetics*, please follow these guidelines, or publication may be delayed.

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- .txt | Plain ASCII text
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- .htm, .html | HTML document
- .doc, .docx | MS Word document
- .jpg | JPEG image
- .swf | Flash movie
- .xls, .xlsx | MS Excel spreadsheet
- .pdf | Adobe Acrobat file
- .mov | QuickTime movie
- .ppt, .pptx | MS Power Point slide
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- MPEG animation (.mpg),
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File sizes should be as small as possible, with a maximum size of 30 MB, so that they can be downloaded quickly. The combined total size of all files must not exceed 150 MB. The combined total size of all files must not exceed 150 MB. Video files should use a frame size no larger than 320 x 240 pixels.

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Further queries about submission and preparation of supplementary information should be directed to genetics@us.nature.com.

Resubmission

If you have been invited to revise and resubmit your paper to *Nature Genetics*, you should follow the instructions provided by the editor in their decision email. You will be expected to provide: a revised version of the manuscript that addresses the issues raised by the peer reviewers; a response to each of the reviewers, replying to their comments in a point-by-point fashion; a cover letter that provides any additional confidential information or concern for the editors.

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Language

As *Nature Genetics* is read by scientists from diverse backgrounds, many of which are not native English speakers, it is essential that the findings are reported in an accessible language. Manuscripts are subject to substantial editing, in consultation with the authors, to achieve this goal. You are welcome to discuss proposed changes with the editors, but *Nature Genetics* reserves the right to make the final decision about matters of style and the size of figures.

After acceptance, a copy editor may make further changes so that the text and figures are readable and clear to those outside the field, and so that papers conform to our style. *Nature Genetics* uses American English spelling.

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Drawing settings: chain angle, 120° bond spacing, 18% of width; fixed length, 14.4 pt; bold width, 2.0 pt; line width, 0.6 pt; margin width 1.6 pt; hash spacing 2.5 pt.

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