

## From ant-catcher to author: editors' advice to young myrmecologists

JOHN R. FELLOWES AND MARTIN PFEIFFER

### INTRODUCTION

*Asian Myrmecology* is a journal created and edited for those studying ants in Asia. It was established not necessarily to become the top journal in its field, but primarily to support and serve those in its region: experienced ant researchers as well as beginners. Its editors and reviewers give generously of their time and expertise to make it work, and we believe *Asian Myrmecology* has played a role, like the International Network for the Study of Asian Ants (ANeT) which created it, in raising standards of myrmecology in Asia.

The existence of the journal provides a great opportunity for young researchers who might otherwise find it hard to publish in international literature. From the start, we have been reluctant to reject any papers outright, preferring instead to guide contributors towards a publication that is informative, clear and thus helpful to others.

The success and durability of the venture depends on all parties: above all the authors. Most successful authors are avid readers, who have studied the literature of their colleagues well (no, not just as Facebook friends); thus they have learned first-hand about the logic, style and wording in science. The more you read, the easier it will become. Nevertheless scientific reporting is complicated, and can be challenging for all of us, especially as beginners. The editors' role is to help the author remove barriers to communication: anything that is distracting, confusing, misleading or ambiguous (Billingham 2002). As Jules Renard (1892) said, "Clarity is the politeness of the man of letters," and the reviewer and editor can help you achieve it.

In view of the severe limitations on reviewers' and editors' time, and recurring issues over the first five years of the journal's existence, we have compiled some advice to those submitting manuscripts to this or other international journals. This advice comes from a desire to minimise the distractions from sound, understandable science,

and to streamline the whole process such that we all make the most of the time we commit to it. To some extent the following represents advice to ourselves; most scientists are guilty of some of the errors flagged here. We have also directed it at the young myrmecologist rather than all colleagues, through a mixture of respect and diplomacy; but mature myrmecologists are welcome to read it too. It is never too late to reform.

By an accident of history, English is the main language of science. A common language has pros and cons – it enables most of the world's scientists to understand one another, but introduces quite a burden. As you will have noticed, Asia is rather short of native English-speakers, and most research budgets do not seem to include language editing (something you should address in your next grant proposal). The *Asian Myrmecology* team has provided voluntary editing for all papers published so far, but this can only be sustained if the work involved is not too major.

What frustrates a busy editor? There is a long list, but it includes weak logic (activities or interpretations with no explicit rationale), carelessness (failing to check detail), verbosity (taking many words to say very little), copy-and-paste presentation (reporting something just because someone else did – often a correlate of weak logic) and repetition (guaranteed to switch off the once-interested reader). Less frustrating, in our experience, is straightforward ignorance – nobody knows everything, you have to start somewhere, and this journal is intended to help. (Ignorance sustained through mental laziness, on the other hand, is demoralising.) When an editor is trying to help you express something, and asks you for clarification, please do not make them squeeze it out of you, one grudging fact at a time. It is not espionage. We are on the same side.

An extreme frustration for the editors and reviewers is to painstakingly make many corrections on a manuscript, only to have them ignored or quietly overruled by the authors when

the manuscript is resubmitted. This has happened more than we might have expected. If you do not know why something has been amended, or suspect it is a mistake, please ask – the correction has been made for a reason, not for fun, but you are perfectly entitled to question the reasoning (ideally all changes would be explained, but in practice time-constraints often prevent this). To ignore it altogether is to waste the editors' time, and to weaken your paper needlessly if they do not spot it the second time around and correct it again. Similarly, do not make any new changes without tracking them. Editors do not want to spend all their 'leisure' hours chained to the computer, correcting errors, and are not (necessarily) the compulsive pedants they may seem, but equally are charged with maintaining standards of clarity that everyone can accept. They also have their own lives, and commitments, and may be operating close to their limits. Be gentle with them.

### **Before you start writing**

Most beginners are unaware that after fieldwork only 50% (and often less) of the overall work is done. Statistical analysis of the data, reanalysing after a forgotten procedure, writing, rewriting, producing figures, formatting, responding to reviewers, rewriting again... these all take an awful lot of time, and in many cases more time than the field research itself. Try to plan your time accordingly. In *Asian Myrmecology*, though we attempt to be more welcoming than most international journals, some 30% of all papers are not resubmitted by authors after the review process, as the authors see that the workload needed to publish their results is too high. This is an alarming figure, but it also demonstrates that many ant researchers underestimate the process of publication, and/or are less convinced by their own results after critical discussion with reviewers. You need to be prepared for feedback on your paper, and the best preparation is sound data!

How many ants have to be sampled to justify a paper: 50, 500, 5000 or 50,000? Many ecological journals may expect a high sampling-effort to minimise the risk of misleading results, whereas a taxonomist may find one ant – a new species – and produce a paper on it. We would

not advocate the mass slaughter of insects: on the contrary, we respect all living organisms. But good study design will at least ensure their sacrifice serves to improve our knowledge. In one day of sampling, you are unlikely to achieve a statistically-sound data set – and sound data are the foundation for any paper, and the only justification for all the efforts and the mental input that you (and we and others) will have to deliver to publish your results.

An important early decision is which habitat to sample. There are huge gaps in knowledge on the ants of Asia's natural ecosystems. Yet – possibly due to the high human pressure on Asia's landscapes – we receive a surprisingly high proportion of manuscripts that sample anthropogenic modified habitats (including gardens, university campuses, fields etc.). These are often convenient to sample, and potentially interesting if the findings are placed in a wider context, but unlikely to give you a broad exposure to ant species, or represent the natural ant communities of your region; and unless you know a lot about the management history, the findings may be hard to explain. Consider a project in the more natural habitats in your region: the higher expenses for travel costs and organisation will be rewarded by much higher ant diversity, greater interest to readers, and a valuable reference point for studies of disturbed systems. Indeed if you want your study to be of conservation value, it may be wise to co-design it with others, such as those responsible for ecosystem management (Fellowes *et al.* 2009).

### **The storyline: what do you want your paper to say?**

We should say at the outset that there are some great publications out there written to guide young researchers (e.g. Cargill & O'Connor 2009), including free Internet resources (e.g. <http://owl.english.purdue.edu/owl/> or <http://abacus.bates.edu/~ganderso/biology/resources/writing/HTWtoc.html>). Our notes are not a comprehensive alternative to these. The content here is drawn from our own experience with *Asian Myrmecology* (AM), and largely reinforces sound advice available elsewhere.

The most fundamental decision to make (and not always an easy one) in a paper is: “what is the main story we are telling”? This involves a clear idea of what your objectives were (in most cases, what hypothesis you have stated), what your results say, and what can be concluded from them. Clarity on this allows a decision on which data to include, and how to introduce the study. It allows a logical flow from Introduction, through Methods, to Results and Discussion.

This main story is the content of the **Abstract**. The Abstract is the most important part of the paper, and the only part most people will read. If the logic is not clear, you may be tempted to present information of minor interest, or simply copy the findings of other papers. (Many papers submitted to *AM* have prominently reported the total number of ant species they found in each subfamily. Is this an important part of your story? If so, include it in the abstract; if not, do not use up valuable space.) The Abstract should briefly mention all the most important things in the paper – rationale, aims, methods, main findings and implications. Conversely it should not contain anything that is not covered elsewhere in the paper.

### Why should we start reading it?

If you have done a piece of research, there should be an explanation for it – why should anyone be interested in it? Why should it be given print space, and reading time? The **Introduction** section allows you to place these objectives in the context of past literature and knowledge. Recent textbooks (e.g. Corlett 2010; Lach *et al.* 2010) and review papers may help. Above all it should give an understandable rationale. Note “Biodiversity is a hot topic” is not a rationale – a science journal is not a fashion magazine. Similarly it is not a compelling case to say “Nobody has done much on ants in this town/county/province before.” This is true for most places in Asia and the world, but you should still place the study in the context of what has been learned elsewhere – your study may be the first of its kind in its biome or ecosystem-type, which is well worth mentioning, but it is not the first on the planet. At the end of the introduction you should give details on your scientific questions, and formulate

a scientific hypothesis about what you expected before conducting your study.

The review of past knowledge is important: it should be tight but informative. Do not cite information just because it is there, or because that is the only paper in your library; if you are going to contribute to the literature on a particular topic, you should have read and digested a fair amount of it first. The reviewers will generally draw your attention to important papers you have missed, but it is your responsibility to look for them first (if access to journals is a problem, most authors will happily send you a pdf of their paper). If an intelligent layperson can learn more than you know about your subject from a few minutes on the Internet, you are not doing your job. Focus the cited literature only on your scientific story, concerning your hypothesis – even if you have written a wider literature review for your thesis, you do not need to include it all here. Think too about the journal’s readership in doing this. If the journal is about myrmecology, you do not need to tell the reader what an ant is. But if you are doing an ecological study, the interested reader needs to know something about the geographical location and ecosystem you are working in.

There are recognised strategies to make the logical flow of the Introduction easier to follow (Cargill & O’Connor 2009). Among them are to set up clear expectations (through titles, subheadings or text) and quickly meet them; to progress from more general to more specific information; to put old information before new; and to ensure the early part of a sentence includes both a link to the preceding sentence, and the subject and verb of the current one. Start to notice what you find hard or easy to read in other papers – alert readers will doubtless find flaws in this one! – and get into good habits.

### Weeding-out distractions from the story

As you may have noticed, there is a lot of literature in the world, and nobody has time to read it all. A first duty of scientific authors is to cut out extraneous information and write **clearly and succinctly**. This will be much easier if the objectives of the study are tightly defined.

Make sure you understand the words you use – it is better to use simple language than to adopt the latest jargon without fully understanding it. It is also a good idea to curtail your literary ambitions in a science paper: you may have a wonderful poetic turn of phrase, but it will not help the reader here. In general, concise writing gets easier and more appreciated with experience (or perhaps declining life-expectancy).

Some English pitfalls are so common they are worth mentioning:

- ‘most’ vs. ‘many’: the former means a majority, the second just means a large number. So if you say ‘most of the 20 species were myrmicines,’ this means more than ten (50%) were myrmicines. If you say ‘many of the 20 species were myrmicines,’ you could be referring to anything more than a few (see below).
- ‘few’ vs. ‘a few’: the first implies a judgement, the second is a low number. So ‘few hairs on the antenna’ means the number of hairs is low (compared to other species); ‘a few hairs on the antenna’ means perhaps 3 to 6, but with no judgement about whether this is a high or low number.
- ‘e.g.’ vs. ‘i.e.’: the former is used before introducing one or more examples (not all examples, as in a full species list) (... ‘myrmicine genera, e.g. *Pheidole*.’). The latter is used to show that the things before and after it are equivalent (“... the study of ants; i.e. myrmecology.”). Often ‘i.e.’ can simply be replaced with a colon.
- ‘etc.’: do not over-use this word, which is intended to convey continuation of a pattern (“...1, 3, 5, etc.”). If you say “...ants eat insects, honeydew etc.,” or “...genera included *Crematogaster*, *Polyrhachis* etc.,” you just convey that you got bored with your own sentence.

Repetition will soon switch off the reader. If you have summarised knowledge of a subject in the Introduction, there is no need to do the same again in the Discussion – only say how

our knowledge has changed. If results are in the Results section, there is no need to repeat them in the Discussion section, unless they are central to that discussion.

### **Nurturing your inner perfectionist: attention to detail**

**Formatting guidelines** are designed to make everyone’s life easier – writer, reviewer, editor, typesetter and reader. Please follow the guidelines, as far as they go, and feel free to ask before any time-consuming formatting decision that is not clearly explained.

There is plenty of good advice on **punctuation** (e.g. King 2000; various online references), and even native-speakers need to consult it sometimes. Some of it is important to understanding; some is more to do with convention, but consistency in following convention will itself reduce confusion (see *Asian Myrmecology* 2012). A very common example is that sentences should not begin with an abbreviated species name (e.g. “...habitat. *P. longicornis* occurs...”) or a numeric-form number (e.g. “...ants. 25 species...”) – these can be distracting or ambiguous after a full stop. If an abbreviation comes at the end of a sentence, a single full stop is enough. Do not rely on Microsoft Word to ‘autocorrect’ your punctuation – it is not geared for the conventions and subtleties of scientific communication, and is no substitute for careful scrutiny.

Hyphens can be important. For example, what is the meaning of ‘low temperature stress’? Is it the stress induced by low temperatures (low-temperature stress), or a condition in which temperature exerts minor stress (low temperature-stress)? Is a ‘red tree ant’ a red ant on trees (red tree-ant), or an ant on red trees (red-tree ant)? In many cases the reader can guess the meaning, but hyphenation can make all clear.

In a couple of cases, biological convention contradicts the normal rules of English. One instance is the positioning of the comma in a taxonomic authority (see below) – it is essential, between the name and the year, even when this throws the grammar out of joint. Another relates to italics: these have very specific uses in genus, species and subspecies names (not in phylum, class, order or family names), and

more generally when a word is borrowed (on short-term loan) from another language. In other situations, italics are best avoided.

Please do not mistake efficiency for laziness. Have you ever written a list of scientific names, in italics, separated by commas, and just italicised the whole lot? Think of all the seconds you saved. Unfortunately, an editor had to contribute that time instead: for your paper. It sounds trivial, but italicised commas look different to un-italicised commas, and spoil the look of the paper and the journal. The same goes for many aspects of formatting, which needs to be precisely according to the journal's style. Avoid taking shortcuts that create work for someone else.

Correctly **naming organisms** is fundamental to biology. Inevitably names change as understanding grows, but you should try to keep abreast of the changes. In the case of ants, leading myrmecologists do a great job in helping beginners through the minefield of changing taxonomy: see Bolton *et al.* 2007, or even better <http://www.antcat.org>. If you do not know the basic rules of **taxonomic nomenclature**, read them (<http://iczn.org>). In brief (because many authors evidently do not know), a full name includes current genus and species (with the old subspecies name if this has not yet been reviewed – note new ant subspecies have not been introduced since Wilson & Brown 1953). This name is immediately followed by the taxonomic authority (the name of the person who described it in a publication) and the year of publication, separated by a comma: “Forel, 1902”. Where the species is no longer in the same genus it was described in, the authority and year both go in parentheses: “(Forel, 1902)”. In *AM* we ask authors to give the authority (with or without the year) for any taxon mentioned in the paper – this may be in a table or in the main text. If it is made in the text, it should be at the first mention only.

Where other organisms are mentioned in a paper, the difficulty of obtaining reliable nomenclature will vary with the taxon. In the case of plants, the key reference is [www.theplantlist.org](http://www.theplantlist.org) which is easy to search for current accepted nomenclature. Again we ask for taxonomic authority (sometimes more complicated in the case of plants – follow the given format precisely). If the names given for plants are incorrect, they will

be meaningless to others; if you have to make assumptions in ascribing a correct name, you can state these assumptions.

Consistency is also valuable in naming places. Proper nouns, including place names, begin with a capital, but descriptions do not: hence ‘North Korea’ (a recognised geopolitical unit) vs ‘southern China’ (an undefined region). You can turn any area-name into a proper noun in your paper if you first define it (e.g. ‘...Guangxi, Guangdong, Hainan, Hong Kong and Macau, hereafter ‘South China’...’).

If you use an English vernacular name for a species, it is clearer to capitalise this too: if you introduce ‘Red Tree-ant’ as referring to *Oecophylla smaragdina* the two names can be used interchangeably; but if you only mention a ‘red tree-ant’ the reader will not know to which species you refer – only its colour.

All **References** listed in a paper must be cited in that paper; conversely, all cited papers must be listed. This is basic advice, but often forgotten – and then becomes yet another burden on editors. Be careful of surnames (family names: written in full) and given names (written as initials) – a big challenge given Asia's varied name formats. Avoid filling the reference list with spaces to make it look good – the alignment may change later, and all those spaces will need to be removed. Use the hanging-indent tool, or leave it unformatted.

### So what exactly did you do?

**Methods** should contain enough detail, in all the important aspects, for someone to repeat the study. Not many readers will repeat it, but all will need to interpret the findings. Tell us where you worked (including the country, coordinates and vegetation types), how you chose the sampling localities, how and how long you sampled. Remember that the further apart two sampling plots are, the more likely the ants are to be different. So always give the distances between replicates. If you measured temperature, tell us how – we need to know whether the temperatures are 24-hour or daytime only, year-round or just in the active season. If you used several methods, arrange them in the same order you later use in the Results, so that the reader can go from one to

the other. If appropriate, try to keep this logical order in the Discussion too.

If your study refers to locations at different scales, be sure to use consistent terminology for these. For example you may define two study sites, each with three plots, each with many quadrats; avoid then referring to ‘the study area’ if this term has not been defined.

Beware of misusing the word ‘random’ – a very common error. Random sampling is often a good idea, to ensure you are not pre-selecting sites with particular features, but random sampling is not the same as choosing sites in a haphazard way, and it is not carefully choosing them to be as representative as possible. The purpose of random sampling is to eliminate selection bias altogether – if randomness was part of your study design, explain how you achieved it.

Inadequate or poorly-planned sampling can lead to all sorts of misleading conclusions, especially given all the interrelated variables in nature. Replication of sampling units is designed to overcome some of these problems, but needs a lot of thought. For example, if you compare a forest plot at 100 m a.s.l. with a grassland plot at 200 m a.s.l., how will you interpret the differences? Are they due to the different altitude, or the different vegetation, or both, or neither? You may have this problem of interpretation even if you have multiple plots at each locality. Where you have aimed for replication, but failed, you are guilty of pseudoreplication (Hurlbert 1984). In practice most studies are guilty of some form of pseudoreplication, but it is important to be aware of the limitations of your study, and avoid making great leaps of deduction from it.

Ants give particular problems in studies that compare abundance. Let’s say you have set 100 pitfall traps each in two different sites. It is quite possible that one trap in one site has filled up overnight with thousands of individuals of one species, such as *Pheidologeton diversus*; but by pure chance, only a few individuals of this species occurred in any one trap at the second site. If you calculate relative abundances, diversity indices and other statistics based on the number of individuals caught, everything will be affected by this chance result. For this reason most ant studies compare frequencies or other measures that are not so distorted by the presence

of individual colonies. Frequency in our case of the 100 pitfall traps would be the number of traps containing that species (a measurement that is also called “pseudoabundance” as it is limited by the number of traps). Ideally the distance between traps should exceed the largest foraging range of species in that area, to minimise the influence of individual colonies on the results. If *P. diversus* was found in 8 of 100 traps at one site and 23 of 100 traps at the second site the frequency of the species would be higher at the second site; for a colonial species this is more likely to be a biologically meaningful difference than the number of ants in the traps. More information on ant statistics is given in the excellent review by Gotelli *et al.* (2011), which is freely available at the website of *Myrmecological News*.

**Identification** is a vital part of your Methods, and it is important to say who made identifications, and how. If you are a student, and are basing your identifications on ‘The Beginner’s Guide to Ants’, the reader has more cause to be sceptical than if you have been an expert on the local fauna for 30 years. Dominant or highly frequent species, in particular, should where possible be identified rather than treated as ‘morphospecies’, and there are a lot of literature and tools on the web to help you with identification (e.g. antbase.net, antbase.org, antweb.org). Back up your identifications with any expert confirmations you have had – and try to obtain these if at all possible.

### And what exactly did you find?

The **Results** section is the place to report your findings. It is not the place to repeat an account of methods given earlier (though you may need to report a refinement of the Methods to understand the findings). It is also not a place to discuss the significance of the findings.

A common error in reporting science is to state a fact as though it is a generalisation. If you found the most abundant species in a given forest to be *Xxx yyyy*, do not say “*Xxx yyyy* is the most abundant species” – it was the most abundant, at a given time and place and for a given sampling method (and for all we know it may not be so anywhere else or ever again). Tense is therefore important: results are generally reported in the past

tense in text, though the present tense may be used to explain a pattern in a graph or table caption.

Beware allowing your assumptions to creep into your reporting of results. In a comparative study, if, say, you, found more species in a secondary forest plot than in a nearby shrubland plot, do not report that species richness "has increased" in the forest – this is an assumption that might be explored in the Discussion. In the Results, simply say that species richness was higher in the forest plot – you did not measure changes over time.

Numbers cause a lot of difficulty; in general we follow the convention of expressing low numbers (one to ten) in words and larger numbers (11 or more) in numeric form. There may be exceptions when precise quantities are given in the Results. Keep to the rules of English, such as the pairs of words like 'between...and...', and 'from...to...'. If you write 'temperature increased from 10-20', you will lead the reader to expect a higher range (e.g. '...from 10-20 to 30-40').

There is some confusion in decimal-place usage between English-language journals, which use a full stop (e.g. 0.05) and some other European languages, which use a comma (0,05). As an English journal we use the former.

**Precision** is much loved by scientists, but the precision of numbers is no more important than the precision of concepts and categories. There is little point in saying "forest cover is 50.14%" if you have not explained exactly what "forest cover" means, or how you arrived at the figure. Using a lot of decimal places does not improve your science (as Confucius put it, "To go beyond is as wrong as to fall short"). In general it is a good idea to standardise numerical precision to no more than two or three significant figures (50.2, or 3.14, or 0.00152), though of course there are cases when greater precision is important. Your concepts and categories, on the other hand, should be as precise as you can make them.

Most journals will have some rules about **table formats** – again, this is to minimise distractions to the reader rather than to express some obsessive-compulsive disorder. If you look at a good science journal you will notice some features of readable tables, such as adequate spacing; left-justified text columns; centre-justified number columns; and units in column headings

rather than after every number. Do not forget to include a caption above the table in which all variables and acronyms are listed and explained.

The same data should not be presented in both figures and tables; instead the author should decide which format will present the data most clearly. Figures can be very helpful to show trends and give a general overview, when detailed numbers are not needed. Please note that figures have to be submitted as one graph (e.g. in tiff format) and not as a mosaic of pieces compiled in a MS Word file! In preparing figures, communication and readability must be the ultimate criteria. Special effects, like three-dimensional figures and other gimmicks available in most software packages, should be avoided. All tables and figures have to be cited in the text, to show how they fit the story you are telling.

Statistical results should include the name of the test, the statistic result, the number of observations or degrees of freedom, and the *P*-value. Consult a statistics book on which test to use. **Free statistical software** for calculation and graphics is available on the Internet; this includes the legendary but complicated R-stat (<http://www.r-project.org>), as well as more convenient Excel Add-ons, e.g. poptools (<http://www.poptools.org>) or the Apache OpenOffice suite (<http://www.openoffice.org>).

### What, then, does it all mean?

The **Discussion** is perhaps the most variable, unfettered part of a scientific paper – often a welcome opportunity to combine opinion with fact. As editors we have no desire to reduce the freedom you have here. But try to keep your interpretation in proportion to the findings. The more you infer, the less confidence the reader will have in your conclusions – especially if you are a beginner.

Indeed inference can be misleading. If you found 20 species in a dipterocarp forest, and another study by a different person at a different time in a different place using different methods found 30 species in a rubber plantation, you should be careful what you conclude about the biodiversity of dipterocarp forests and rubber plantations. Your 'soundbite' findings may be taken out of context, and an entire mythology may be born.

Biodiversity conservation and climate change are some of the most important challenges of our time, and many scientists (including *AM* editors) care passionately about them. But this does not justify a tacked-on and half-hearted message about them to every paper. If you are approaching a study with a serious view to informing conservation effort, or to understanding the effects of climate change, you will design the study accordingly (and if it is done and reported well, we will welcome it with open arms). If you set a few traps or baits in one habitat to see what was present, and know nothing about adjacent habitats or the ecology of the species found, you are unlikely to add much insight about conservation or climate change.

If you are lucky enough to have several co-authors to your paper, make sure you have discussed the contents of your discussion. Be frank with each other – what sounds a brilliant interpretation to one researcher may sound ludicrous to another, and it is better to iron out the poor logic before submitting a paper than after it has gone through bemused reviewers and editors. As H.L. Mencken said, “To every complex problem there is a solution that is simple, neat, and wrong.” Think carefully about what might be wrong with your conclusions. If you cannot have an honest discussion with your co-authors, you are not doing science.

### **Before and after submitting**

Allow time, before submitting a manuscript, to run through it carefully. At this stage it is worth asking whether you need feedback from an experienced colleague. If your English is not great and you have colleagues who can help, please try them. If they are happy to provide minor language feedback, hopefully they will be happy if you thank them in the **Acknowledgements**. If they also give technical guidance you should consider inviting them to be co-authors. Given the complexities of modern science, a good paper often depends on contributions from several co-authors. But never list someone as a co-author without consulting them first – however much they appreciate the courtesy, they may not want their name on your paper! Indeed you should never submit a paper that has not been seen, and approved, by all the co-authors.

If editors put a lot of time into a paper, the same goes for **reviewers**. They often contribute substantially to the final paper (more, on occasion, than some of the credited co-authors!), having spent hours understanding what you are trying to say, and get no tangible reward. Even if they remain anonymous they deserve thanks, whether or not you agree with all their advice.

As a peer-reviewed journal we depend greatly on thorough reviews of a paper’s value. We have generally been very fortunate in the reviews we have received – they have informed the authors, and the editors, and upheld the whole endeavour. Happily most authors do their share of reviews, when invited.

But not all reviews are equally helpful. The weakest reviews have been those urging either rejection or acceptance without due explanation. Most papers have some strengths and some weaknesses – a reviewer can help draw the editors’ attention to these, especially in disciplines unfamiliar to them. If you accept an invitation to review a paper, you are expressing a willingness to understand it and to help with quality control, regardless of who wrote it – you are not expected to edit the paper, but your opinion on the detail is vital.

### **And finally: why submit to *Asian Myrmecology*?**

Why indeed? If you are in academia, you will want as high a citation-impact as possible, and you may decide to aim for a global journal with as high a rating as possible. This is fine. But some papers are less attractive to global journals – especially if the findings are of more regional interest than global, or more descriptive than theoretical, or do not use the state-of-the-art methods and analysis. Local journals, on the other hand, may suffer from low readership, and more variable peer review and editing attention. *Asian Myrmecology* is a good intermediate channel: a regional journal. But it is not intended to be a ‘soft option’. Like other international journals we strive for high taxonomic standards, clear methods and analyses, full reporting of statistics, quite comprehensive literature review, and high refereeing standards. Since we have a broad readership we also aim for minimal unexplained jargon, and we also need intelligible English

before we can send a paper for review. To serve the many, we cannot devote days of work on any particular paper, so please use the means at your disposal to send us high-quality work. With your help, we can continue to improve, and support the development of myrmecology in Asia.

If the above sounds intimidating, be assured we do not expect perfection – just that authors follow the ANeT motto “Strive to Excel”. If it makes us sound grouchy, bear in mind many papers have come our way over the years, and intense frustration has been rare. A more frequent experience for us as editors is the uplifting one, of being part of a community bound by common interest in and (dare we say it) reverence for nature, with all the shared joy, dedication, respect and gratitude that goes with it. We invite contributors, new and old, to be active in that community, and thank you for your part in it.

#### ACKNOWLEDGEMENT

Carsten A. Brühl provided helpful feedback on a draft of this article. The first author would like to express a great debt to David Dudgeon, who gently alerted him to many of the scientific courtesies described above.

#### REFERENCES

*Asian Myrmecology* 2012. Guidelines for authors. Downloaded from <http://www.asian-myrmecology.org/guidelines.html> on 30 August 2012.

- Billingham J, 2002. *Editing and Revising Text*. One Step Ahead, Oxford University Press, 136 pp.
- Bolton B, Alpert G, Ward PS and Naskrecki P, 2007. *Bolton's Catalogue of Ants of the World 1758-2005*. Harvard University Press.
- Cargill M and O'Connor P, 2009. *Writing Scientific Research Articles: Strategy and Steps, 1<sup>st</sup> Edition*. Blackwell Publishing, ISBN 978-1-4051-8619-3.
- Corlett RT, 2009. *The Ecology of Tropical East Asia*. Oxford University Press, 288 pp.
- Fellowes JR, Lau MWN and Chan BPL, 2009. Can science in China do more for conservation? *Oryx* 43: 1-2.
- Gotelli NJ, Ellison AM, Dunn RR and Sanders NJ, 2011. Counting ants (Hymenoptera: Formicidae): biodiversity sampling and statistical analysis for myrmecologists. *Myrmecological News* 15: 13-19. Downloaded from [http://myrmecologicalnews.org/cms/index.php?option=com\\_content&view=category&id=477:myrmecol-news-15-13-19&Itemid=85&layout=default](http://myrmecologicalnews.org/cms/index.php?option=com_content&view=category&id=477:myrmecol-news-15-13-19&Itemid=85&layout=default) on 27 August 2012
- Hurlbert SH, 1984. Pseudoreplication and the design of ecological field experiments. *Ecological Monographs* 54: 187-211.
- King G, 2000. *Good Punctuation*. HarperCollins Publishers, Glasgow, UK, 185 pp.
- Lach L, Parr CL and Abbott KL, 2010. *Ant Ecology*. Oxford University Press, New York. xvii + 402 pp.
- Wilson EO and Brown WL Jr, 1953. The subspecies concept and its taxonomic application. *Systematic Zoology* 2: 97-111.