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Editorial

Community Ecology: ten years are gone

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With this issue, *Community Ecology* enters its second decade. We feel it is the right time to put the past into perspective by taking stock of the achievements on which the Journal's future can be predicated. *Community Ecology* was established in 2000 by the merger of two other journals, *Coenoses* published by CETA in Gorizia, Italy, and *Abstracta Botanica*, published by Eötvös University, Budapest, Hungary. The Editors and Board Members of these two journals felt that there was a strong reason for their consolidation in a single literary object devoted exclusively to the furthering of development in theory- and methodology-oriented community level studies while not restricting the scope to any particular organismic group. The Editors were also convinced that concentrating efforts into developing a new journal would be necessary to reach wider circulation and inclusion in the world-wide acknowledged indexing and internet resources. We are confident that both of these objectives have been fulfilled.

1. Inception and progress to self sustainment

Community Ecology started with an international editorial board with the Hungarian Ecological Society as its exclusive owner. The Publisher (Akadémiai Kiadó, Budapest) was generous to support *Community Ecology* in the first few years with financial support from the Hungarian Academy of Sciences. We are pleased to report that the Journal now stands on its own. As a strong indicator of the Journal's ascending popularity and impact, we note the increasing number of article downloads from the web site of the Journal on a sharp slope from 1640 in 2006 to 4537 in 2009. At the same time, we have developed a strong refereeing system which ensures high quality accepted papers, with the rejection rate of manuscripts being ca. 40%.

2. Authorship

The total number of Authors is 545 (excluding authors of only book reviews). The number of papers ranged between 11 to 20 per volume, giving a total of 275. This sum is aggregated according to country of origin (Table 1) showing that in the first 10 years 39 countries supplied authors for the journal (fractional numbers arise from multiple authorships). Six countries (Hungary, Italy, USA, Canada, Australia and Switzerland) contributed at least ten articles each. Figures in the table offer a comparison between the first six years (without being referred by ISI) and the last four years (included in the Web of Science, WoS). It is interesting that this breakpoint had a striking – and unexpected – negative effect on contributors from the USA, Canada and Australia (i.e., they were the most "altruistic", with most of their publication numbers in the first period), while obvious increases are observed for Hungary, Italy and (from 0 to 5.58) for the Czech Republic (i.e., authors from these countries were probably most encouraged by the journal being included in WoS).

3. Co-authorship network analysis

We performed network analysis of co-authorship in *Community Ecology* and found that 528 out of the 545 authors have published co-authored papers, i.e., they form a co-authorship network. This network (Fig. 1) is a graph with vertices as authors and edges corresponding to the co-authorship relation. The graph is undirected (authors' order is neglected) and unweighted (the number of shared publications is not considered). The graph is disconnected, which means that it disintegrates into 90 components (isolated subgraphs). The network in Fig. 1 (drawn by Ucinet software of Steven Borgatti) shows the largest component in red.

The properties of this network are telling. The giant component contains 123 colleagues while a number of components contain only 2 or 3 authors, typically the authors of a single paper. The subdominant components include the Swiss group (23 authors including O. Wildi – pink), the Canadians (17, featuring M. Anand, L. Orlóci and B. Li – brown), the forest ecologists (12, with T. Standovár and students – purple), the Trieste group (11, led by E. Feoli – grey)

Table 1. Countries of origin of articles published between 2000 and 2009 in *Community Ecology*.

Country	Vol. 1-6	Vol. 7-10	Total
Hungary	25.91	34.78	60.69
Italy	14.16	20.86	35.02
USA	23.08	11.40	34.48
Canada	25.08	7.66	32.74
Australia	11.33	1.00	12.33
Switzerland	7.05	5.00	12.05
Brazil	4.80	3.16	7.96
United Kingdom	4.00	2.03	6.03
China	2.00	4.00	6.00
Germany	2.61	3.25	5.86
Czech Republic	0.00	5.58	5.58
New Zealand	3.50	1.66	5.16
Netherlands	4.00	0.33	4.33
Egypt	2.33	1.50	3.83
France	1.75	1.83	3.58
Spain	1.00	2.33	3.33
Argentina	3.00	0.00	3.00
India	3.00	0.00	3.00
Japan	0.66	2.16	2.82
Romania	0.00	2.65	2.65
Israel	1.00	1.41	2.41
Finland	2.00	0.25	2.25
Slovenia	0.00	2.10	2.10
Poland	1.00	1.00	2.00
Chile	0.00	2.00	2.00
Serbia	0.00	1.80	1.80
Austria	0.00	1.75	1.75
Slovakia	0.00	1.50	1.50
Russia	0.00	1.33	1.33
Sweden	0.50	0.75	1.25
Denmark	1.00	0.20	1.20
Belgium	0.00	1.20	1.20
Portugal	0.00	1.00	1.00
Costa Rica	0.66	0.00	0.66
Ethiopia	0.33	0.25	0.58
Thailand	0.00	0.50	0.50
Latvia	0.33	0.00	0.33
South Africa	0.33	0.00	0.33
Bangladesh	0.00	0.25	0.25
			274.88

Table 2. Authors ranked according to numbers of co-authors (D), betweenness (BC) and their ratio (BC/D). We show only the top 15 of the rank lists.

	D		BC		BC/D
Tuba	19	Podani	4862	Csontos	798.00
Bartha	16	Csontos	3192	Podani	405.19
Balogh	15	Kun	2980	Kun	270.93
Ricotta	15	Bartha	2673	Jordán	173.18
Czóbel	13	Ricotta	2134	Bartha	167.09
Palmer	12	Jordán	1731	Bacaro	163.96
Péli	12	Rocchini	1679	Hahn	157.24
Podani	12	Bacaro	1475	Rocchini	152.70
Kun	11	Báldi	1124	Ricotta	142.28
Pillar	11	Botta-Dukát	1082	Báldi	140.50
Rocchini	11	Tuba	1021	Moretti	118.00
Botta-Dukát	10	Palmer	824	Botta-Dukát	108.24
Chiarucci	10	Kenkel	822	Scheuring	103.81
Feoli	10	Scheuring	622	Kenkel	102.75
Jordán	10	Balogh	558	Kertész	90.84

and B. Wilson and his colleagues from New Zealand (10 – grey). However, belonging to a large component connote special status. We note that for contrast that S. Pimm shares a component with only 3 other authors and J. Cohen appears in a diad. The former and present chief editors (J. Podani and N. Kenkel) are members of the largest component.

The network is analyzed for two fundamental indices, degree (D, the number of links for each vertex, i.e., the number of co-authors for each author) and betweenness (BC, number of shortest paths between pairs of points containing a given node). Table 2 summarizes the first 15 authors for each statistic. The maximum degree is 19 for the late Z. Tuba who had 19 co-authors in *Community Ecology* (Figure 2a), setting the record for the first decade. His central position in

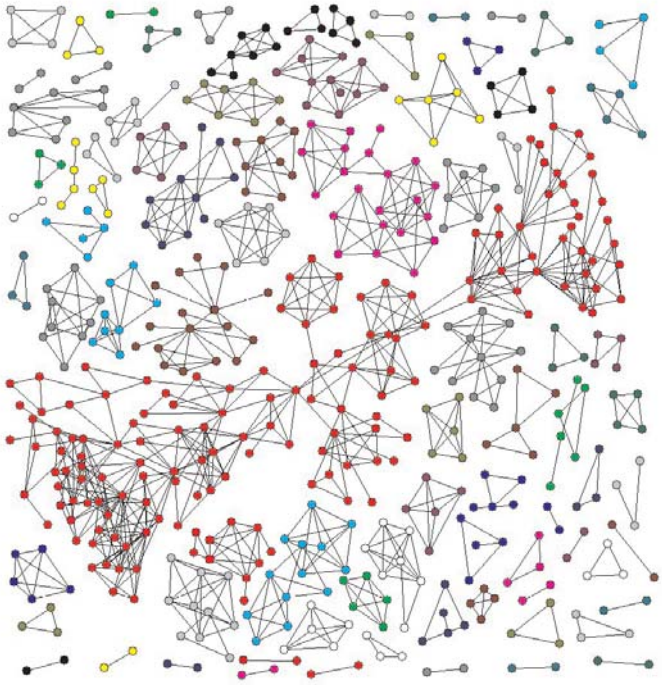

Figure 1. Co-authorship network of *Community Ecology* between 2000 and 2009. When a component is not a clique (complete subgraph), it refers to at least two papers. For example, the yellow line of four authors (close to top-left corner) corresponds to three papers.

Table 3. Number of records with citations to *Community Ecology* as reported by WoS and impact factors.

Year	Citations		IF
2009	122	23.78%	?
2008	100	19.49%	0.89
2007	88	17.15%	0.60
2006	74	14.42%	0.55
2005	47	9.16%	0.45
2004	32	6.23%	0.50
2003	28	5.45%	0.32
2002	11	2.14%	0.34
2001	4	0.77%	0.08
2000	0	0	-

Table 4. Authors of most highly cited articles in the Web of Science until January 2010.

First author of the paper	Year	Volume	Page no	No. of citations
Palmer MW	2000	1	95	18
Ricotta C	2000	1	89	17
Wildi O	2000	1	25	14
Collins BS	2001	2	21	13
Oliveira JM	2004	5	197	13
Orlóci L	2002	3	217	13
Jordán F	2001	2	181	11
Plattner M	2004	5	135	11
Anand M	2001	2	161	10
Dale PER	2002	3	19	10
Jordán F	2003	4	79	10
Küchler M	2004	5	55	10
Waser LT	2004	5	121	10

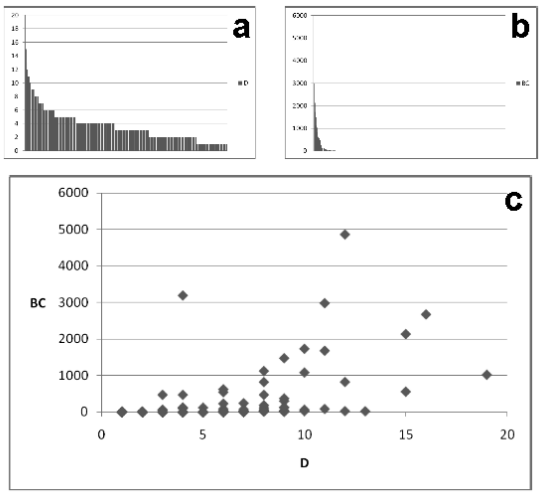

Figure 2. The ranked values of degree (**a**) and betweenness centrality (**b**), and the positions of Authors on the D/BC plane (**c**). Explanation in text.

the network is primarily due to his crucial role in organizing a symposium and publishing its proceedings as a special issue of *Community Ecology* ("Grassland Ecology in Changing Climate and Land Use", 2008).

Betweenness centrality, as usual, shows a very strongly skewed distribution, with most nodes with zero value (Figure 2b). There are only a few Authors who play a key role in connecting different parts of the network and hopefully playing some role also in scientific integration.

Table 5. Citing papers by country.

Country	Citations	
USA	120	23.39%
Hungary	90	17.54%
Canada	71	13.84%
Italy	67	13.06%
Germany	36	7.01%
Switzerland	35	6.82%
Brazil	31	6.04%
Spain	30	5.84%
France	27	5.26%
UK	22	4.28%

Table 6. Citations by source.

Journal	Citations	
COMMUNITY ECOLOGY	47	9.16%
JOURNAL OF VEGETATION SCIENCE	20	3.89%
BIODIVERSITY AND CONSERVATION	16	3.11%
PLANT ECOLOGY	16	3.11%
ECOLOGICAL MODELLING	14	2.72%
OIKOS	13	2.53%
ECOLOGY	12	2.33%
FOLIA GEOBOTANICA	9	1.75%
FOREST ECOLOGY AND MANAGEMENT	9	1.75%
APPLIED VEGETATION SCIENCE	8	1.55%

The relationship between D and BC (Figure 2c) is a fine indicator of research and publishing strategy. The upper left corner is the place of efficiently networking researchers, who can be central in the network even with a small number of co-authors. They are in „broker" position, according to the sociometric jargon. The node with D=4 and BC=3192 is Péter Csontos, who leads in *Community Ecology* networking. The lower right corner is the place where authors with many co-authors but still a relatively peripherial network position are situated. Zoltán Tuba (D=19, BC=1021.3) appears here.

4. Citation analysis

Cited Reference search in January 2010 showed 512 records in ISI, comprising a total of 686 citations. After the sixth volume, Thompson International decided to include *Community Ecology* in the WoS database and then, in 2006, the journal received first official impact factor score. Together with the unofficial scores we calculated immediately from the beginning (according to records in WoS), we see a continuous increase in citations and a similar albeit non-monotonic increases in IF, see Table 3). The first ten most highly cited articles received 10 to 18 citations in WoS (Table 4), the record (18) held by the paper written by Palmer et al. and published in the very first issue of *Community Ecology*. It is perhaps not surprising that the highest number of citations came from authors in the USA, followed by Hungary, Canada and Italy (Table 5). Major sources of citing pa-

Table 7. The most active citing Authors.

Author	Citations	
Ricotta C	22	4.28%
Rocchini D	16	3.11%
Jordàn F	15	2.92%
Pillar VD	15	2.92%
Chiarucci A	12	2.33%
Podani J	12	2.33%
Bacaro G	11	2.14%
Kolasa J	10	1.94%
Anand M	9	1.75%
Gamez M	9	1.75%

pers are given in Table 6. For a new journal, such as ours, it is quite natural to have self-citations, but these give less than 10% of the total, which is not exceedingly high. The *Journal of Vegetation Science* is the second in the list, showing that the majority of papers in *Community Ecology* are related to vegetation ecology. Subsequent journals in the list include several well-known and widely-acknowledged periodicals in which papers on community ecology are common. The first ten Authors who cited *Community Ecology* papers most frequently are listed in Table 7. All of them have publications in our journal – this is perhaps the result of knowledge of the journal. This will change in the near future and a better familiarity with the journal will draw citations from a broad group of authors.

Finally, we acknowledge the activity of all contributors to our journal, let they be authors, board members or referees. We look forward to a uccessful second decade.

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