

Abstract

**PUTTING THE RIGHTS OF NATURE ON THE MAP**  
A Quantitative Analysis of Rights of Nature Initiatives Across the World

The *Rights of Nature* (RoN) promote a new understanding of the human environment. Instead of objects, natural entities are conceived as subjects with intrinsic value independent of human interests. The implementation of this idea started as a grassroots movement in the United States in 2006. One decade and a half later, the idea has spread all over the world. Despite some efforts, a sophisticated geographical inventory of the movement is missing. Building on an earlier inventory by Kauffman (2020), we identified and analysed 409 initiatives in 39 countries, creating the most comprehensive database of RoN initiatives to date. We developed a taxonomy that may guide further research of this new movement. We also present two detailed maps which can help policymakers, legislators, judges, researchers, and the public at large to evaluate and compare initiatives. We are glad to announce that the findings of this investigation directly help the UN Harmony with Nature programme and have contributed to the launch of the Eco-Jurisprudence Monitor, an online database of RoN initiatives.

**Word Count Abstract**.....169 Words

**Word Count Article (Text + Footnotes + Refer.)**.....3.264 Words

Putzer et al. 2022 - Draft - Do not Share

PUTTING THE RIGHTS OF NATURE ON THE MAP  
A Quantitative Analysis of Rights of Nature Initiatives Across the World

1 - An Understudied Movement

Many solutions have been brought forward to address the world's intensifying ecological crises. One of them are the so-called *Rights of Nature* (RoN) which are "calling for acknowledgement of the fact that [non-human Nature<sup>1</sup> has] rights that humans are morally obligated to respect and protect" (Boyd 2017: 219).<sup>2</sup> Through rights assigned to natural entities, they are being placed outside of instrumental considerations of use and necessity. Stone initiated the (Western) conceptualization of this idea with his seminal article *Should Trees Have Standing* (Stone 1972). Substantial practical implementation began several decades later. Since then, RoN are increasingly considered a suitable addition to mainstream environmental protection efforts. Even though various organisations began to document legal initiatives, their compiled lists and maps provide mostly anecdotal and oftentimes incomplete overviews. While some serious ongoing efforts do exist, virtually none of them encourage deeper (academic) inquiries, as the data are either inaccessible or their collection too time-consuming to be operationalised. Considering the increasing heterogenization of the movement,<sup>3</sup> we assume that, without a conceptual toolbox based on solid empirical analysis, any serious academic study and advancement of RoN is unavoidably limited. Put simply, before anyone can effectively theorize about the 'how' and 'why', someone needs to provide the 'what' (Dubin 1978).

With this paper, we set out to close this knowledge gap by creating an inventory of the movement. The main objectives of this project are (i) to collect, catalogue, compare, and process information concerning all available RoN initiatives, (ii) to develop and propose a tentative taxonomy for their geographic content and legal characteristics, and (iii) to design, among others, spatial charts which aim at increasing the understanding of the movement. Eventually, we would like to inform academics, policymakers, legislators, judges, researchers, as well as the public at large of this legal trend.

2 - Target Area

There were no geographical limitations to the scope of inquiry. Rather, theoretical elaborations designated the field of investigation. Whereas RoN are also used as a moral or normative idea, this paper's target area is the movement's legal implementation.<sup>4</sup> 'Legal' is to be seen broadly, similar to 'institutional', as it includes official legislation, court decisions, local ordinances, declarations and

---

<sup>1</sup> We follow the policy of various scholars and organizations, including the United Nations Harmony with Nature Programme, which writes Nature in uppercase to establish it also semantically as a subject (See, for instance, footnote 1 of the UN GA Resolution A/75/266). This policy also emphasizes the contrast to a lower-case, anthropocentric object vision of nature.

<sup>2</sup> For upcoming introductions see (Corrigan et al. 2021; Kauffman et al. 2021; Tănăsescu 2022). Also (Lambooy et al. 2017).

<sup>3</sup> See (Darpö 2021; Tănăsescu 2020).

<sup>4</sup> RoN in a legal setting have been elaborated by Cullinan's *Wild Law* (Cullinan 2002) and Berry's *Earth Jurisprudence* (Bell 2003).

32 policies from international organisations and other institutions, as well as civil society instruments or  
33 frameworks. It excludes ‘unofficial’ flyers or simple expressions of interest. We also only consider  
34 currently operative initiatives, thus disregarding parodies<sup>5</sup> or pre-modern examples of the idea.  
35 Besides that, the requirement for an initiative to be included in our database is rather straightforward,  
36 as it ‘only’ needed an accessible legal document<sup>7</sup> containing a semantic expression referring to RoN  
37 (see ‘Legal Structure’ in Table 1). We identified these initiatives by analysing existing lists (see  
38 Section 5), consulting experts on the topic, as well as complementary keyword research.<sup>8</sup> Upon  
39 completion, due to our focus on legality, we used a combination of the methodologies of legal  
40 doctrinal<sup>9</sup> as well as content analysis. This meant that we analysed the textual details of each  
41 underlying document and carried out a comparison between them. We identified the various themes  
42 inductively, starting from *a priori* concepts provided by RoN scholarship. In order to double-check our  
43 findings, we subsequently sent relevant parts of the database to the respective initiating organizations  
44 and shared them within expert communities, asking for evaluation and commentary.

### 45 3 - A Taxonomy for the Rights of Nature

46 While compiling the dataset, we opted to lean towards an abundant collection of data for future use, thus  
47 agreeing with Whetten when he writes that “[i]t is generally easier to delete unnecessary or invalid  
48 elements than it is to justify additions” (Whetten 1989: 490). The main objective of the taxonomy is to  
49 locate the RoN movement within existing legal systems. We thus identified how legal tools are used to  
50 further the agenda of this concept. The specific categories and classes were inspired by the literature on  
51 the topic as well as previous databases. Some of them have been developed together with the United  
52 Nations (UN) *Harmony with Nature* Programme,<sup>10</sup> which can be considered the RoN branch of the UN.  
53 With Table 1, we propose a taxonomy which consists of seven categories and 59 classes. The taxonomy  
54 is used pragmatically to identify and code the selected initiatives, with no intention to be final or  
55 exhaustive.

---

<sup>5</sup> Among them are canine Mayors (Rabbit Hash 2020), Sergeants (Kuroski 2018) and Air Chief Marshals (Marshall 2015), as well as ursine Corporals (Deron 2021) or equine Consuls (Woods 2014).

<sup>6</sup> ‘Banais Ríghí’ describes a Celtic tradition where the King would marry the land he governs (Warmind 1992).

<sup>7</sup> For 95,8 % of all initiatives, this definition could be upheld. The remaining 17 initiatives were nevertheless added, but only because the existence of a document was regarded as highly likely. For eleven of them, direct quotes in articles and videos still allowed for a complete analysis. Four of them are ongoing, pointing at possible future availability.

<sup>8</sup> We used search engines to conduct keyword research by combining country or regional geospatial expressions with ‘Legal Structure’ classes (see Table 1) in various languages (see Section 5).

<sup>9</sup> The methodology seems adequate as it “is centred on the reading and analysis of the primary sources of legal doctrine” (Hutchinson et al. 2012: 113).

<sup>10</sup> See <http://www.harmonywithnatureun.org>.

## Putting the Rights of Nature on the Map

Category	Classes
Basics <sup>11</sup>	(i) date, <sup>12</sup> (ii) location, (iii) title, (iv) status <sup>13</sup>
Legal Structure <sup>14</sup>	(i) earth jurisprudence, (ii) habeas corpus, (iii) harmony with nature, (iv) legal entity, (v) legal personhood, (vi) legal standing, (vii) living entity, (viii) multiple rights, (ix) rights (of nature), (x) rights to exist, flourish, and naturally evolve, (xi) subject of rights, (xii) other,
‘Meta’ Verb <sup>15</sup>	(i) acknowledge, (ii) declare, (iii) establish, (iv) grant, (v) guarantee, (vi) have, (vii) is, (viii) possess, (ix) promote, (x) protect, (xi) recognize, (xii) respect, (xiii) shall be considered, (xiv) other, (xv) n/a
Legal Type <sup>16</sup>	(i) constitution, (ii) national law, (iii) court decision, (iv) local regulation, (v) policy [governmental/civil society/institutional], (vi) indigenous law, (vii) other official document
Distinction <sup>17</sup>	(i) nature indistinctively, (ii) aquatic ecosystems [river/other], (iii) animals [collective/individual], (iv) plants [trees/other], (v) rest
Governance <sup>18</sup>	(i) guardianship, (ii) right to petition, (iii) form of petition, (iv) redress, (v) n/a
Motivation <sup>19</sup>	(i) (inter)national treaties/documents, (ii) indigenous beliefs, (iii) religious/other beliefs, (iv) human right(s) to a healthy environment, (v) anti-corporate/capitalist sentiments, (vi) contamination, (vii) disaster relief, (viii) beneficiaries, (ix) urgency, (x) other, (xi) n/a

Table 1: Taxonomy for the Rights of Nature

56

57 The data collection began in June 2020 and ended in June 2021. We identified 409 initiatives that fit  
 58 within this taxonomy. While we identified several relatively isolated pioneering initiatives<sup>20</sup>, 2006 can

<sup>11</sup> ‘Basics’ provides four classes which help the unequivocal identification of each initiative.

<sup>12</sup> Includes the most recent institutional dates for both completed and ongoing initiatives.

<sup>13</sup> We distinguish between completed and not completed initiatives. All not completed ones are marked together (ongoing), the completed ones can be halted before (draft) or during official deliberations (introduced); they can be currently implemented (passed), as well as subsequently denied (overturned). All remaining statuses are either miscellaneous (other) or unidentifiable (unclear).

<sup>14</sup> ‘Legal Structure’ contains twelve classes which reflect an abstraction of a pool of close to 200 unique semantic expressions. Different legal concepts imply different legal implications and/or social perceptions. Some news outlets reporting on RoN suggest that Nature or rivers ‘have the same rights as human beings’ (Roy 2017; Taylor 2017). While this is true for exactly one instance, every other initiative stops short of such an equation, using a more nuanced approach instead. The one instance can be found in Direction 5 of the (now overturned) 2017 Indian Gangotri and Yamunotri glacier High Court judgment which states that “[t]he rights of these legal entities shall be equivalent to the rights of human beings and the injury/harm caused to these bodies shall be treated as harm/injury caused to the human beings”.

<sup>15</sup> ‘Meta’ Verb’ is comprised of 15 classes which reflect an abstraction of a pool of close to 100 unique verb combinations. These verbs offer a preliminary indication of the anthropocentric or non-anthropocentric mindset underlying the initiative. Future investigations could compare the legal semantics with the verb choices in other fields, such as, for instance, human rights litigation.

<sup>16</sup> ‘Legal Type’ answers an administrative legal question. The classes concern both the issuing authority and geographical expansiveness of an initiative. While the former investigates the legal power that created RoN, the latter explores the spatial dissemination. As such, local regulations refer to a relatively small area, whereas constitutions and national law regard an entire nation. The issuing authority for court decisions should be deduced cautiously, as they range from the lowest to the highest courts in a country (we added (HC) to the respective titles of the former).

<sup>17</sup> ‘Distinction’ identifies the scope of RoN, i.e. which part of Nature is represented as a rights holder. While occasionally discussed in theory (and arguably also indirectly implemented), rights are exclusively established for natural entities, rather than for natural processes or other more abstract phenomena.

<sup>18</sup> ‘Governance’ identifies the legal relation to and representation of Nature.

<sup>19</sup> ‘Motivation’ indicates why the specific initiative was implemented. Future research could investigate the diachronic correlation between dominating crisis narratives and RoN motivations.

<sup>20</sup> The 1832 *Tree That Owns Itself* in Georgia as well as the 1936 *Other Tree That Owns Itself* in the neighbouring Alabama lie at the fringes of serious consideration. However, given that present-day politics continue to respect the implications of those traditions, we chose to include both initiatives. More recently, in the dissenting opinion of the 1972 US Supreme Court case, *Sierra Club v. Morton*, Justice Douglas was contemplating over “the conferral of standing upon environmental objects to sue for their own preservation”. In the 1979 *Palila v. Hawaii Department of Land & Natural Resources*, the Ninth Circuit court granted Palila, a Hawaiian indigenous bird, legal standing to sue on behalf of its survival. The same was granted to the Florida

## Putting the Rights of Nature on the Map

59 be marked as the year when the practical implementation of RoN started to get momentum. Chart 1  
60 presents the historical evolution as well as the processing status of all initiatives between 2006 and  
61 2021. The chart not only underlines the increasing use of the RoN concept in the past decade and a  
62 half. The large number of passed initiatives (65,3 %) can provide some indications of RoN's success  
63 rate. The high share (15,9 %) of ongoing initiatives might suggest a continuous relevance in the near  
64 future.<sup>21</sup>

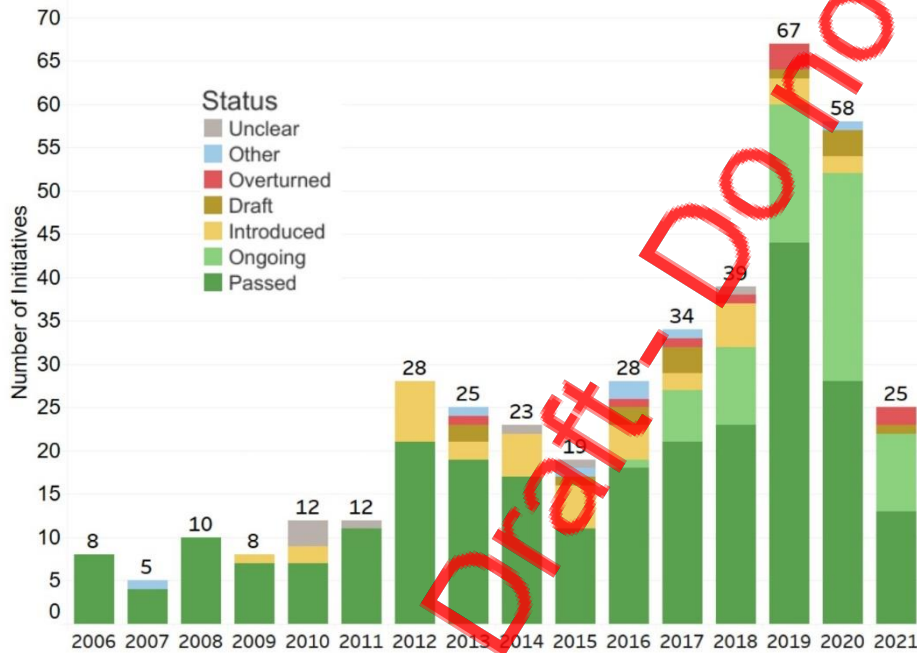


Chart 1: Historical Evolution of the Rights of Nature including Status (since 2006)

65

### 66 4 - Results

67 The initiatives in the dataset are from 39 countries on all continents except Antarctica.<sup>22</sup> The 409  
68 initiatives refer to a total of 430 legal documents. The reason for the numerical difference between  
69 documents and initiatives is mostly 'failed attempts'.<sup>23</sup> Several US communities have repeatedly tried  
70 to establish RoN for the same natural entity, but, for various reasons, did not succeed. 'Front-runner' is  
71 the city of Youngstown in the US-state of Ohio. The municipality introduced nine ballot initiatives  
72 between 2013 and 2018, none of which were passed. We concluded that the city's efforts represent one  
73 long-running initiative that, so far, has produced nine documents. At the same time, while 20 authorities  
74 worldwide issued more than one document, not all of those decisions automatically constitute the same  
75 initiative. Between 2006 and 2009, Blaine Township, a community in the US-state of Pennsylvania, has

Loggerhead Turtle in the 2000 *Loggerhead Turtle v. Volusia County*. Finally, in the 2004 *Cetacean Community vs. Bush*, the idea of legal standing for cetacean animals was introduced but did not pass. Outside of the USA, a 1988 Court in the German city of Hamburg declined the legal standing of North Sea seals which was brought forward to fight the pollution of their habitat. Globally, the 2000 *Earth Charter* includes expressions implying RoN.

<sup>21</sup> The cumulative percentages are 65,3 % (passed), 15,9 % (ongoing), 9,8 % (introduced), 3,2 % (draft), 2,4 % (overturned), as well as 1,7 % (both other and unclear).

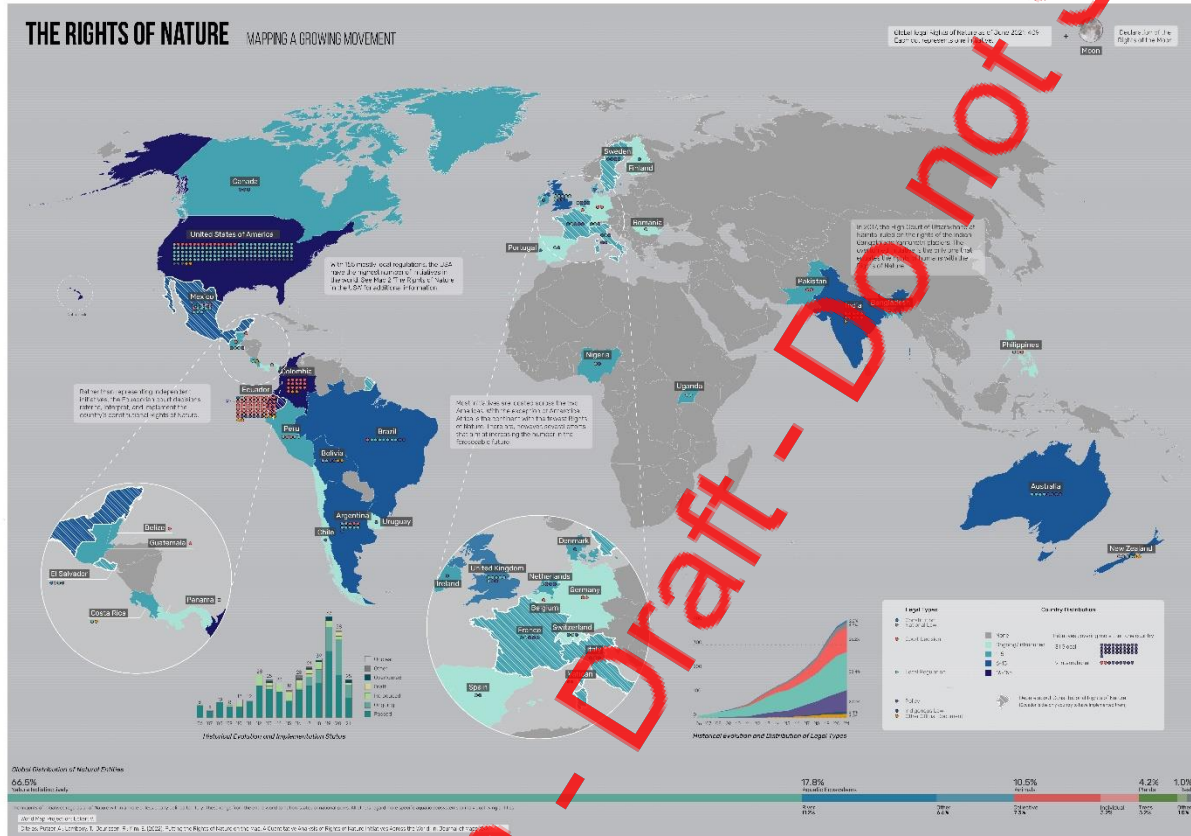
<sup>22</sup> Only emerged after we finalized our data collection, in December 2021, a group initiated the drafting of the *Declaration for the Rights of Antarctica*. For more information see <https://www.antarcticarights.org/>.

<sup>23</sup> Another reason regards two twin initiatives, where different authorities produced the same document.

## Putting the Rights of Nature on the Map

76 successfully adopted five separate yet very similar documents. Since they all went through a clearly  
77 separated process, we defined them as five different initiatives.<sup>24</sup>

78 Map 1 shows the spatial distribution of RoN across the world. 39 countries are responsible for almost  
79 90 % of all initiatives. The remaining 10 % go beyond the confines of a single country?



Map 1: Global Distribution of the Rights of Nature

80 By incorporating three charts on the bottom of the map, i.e. ‘Global Distribution of Natural Entities’,  
81 ‘Historical Evolution and Implementation Status’, and ‘Historical Evolution and Distribution of Legal  
82 Types’, we further visualize and emphasize the variety of RoN. Regarding ‘legal type’, we labelled 38  
83 out of the 40 ‘beyond-one-country-initiatives’ as ‘policy’ recommendations. This homogeneous  
84 tendency is contrasted at the country-level, where we see widely diverging legal types. Globally, with  
85 more than 38 %, the overall dominant legal type is local regulations. This significant proportion is due  
86 to countries like the USA and Brazil, where close to three-quarters of all initiatives (74,8 % and 70 %,  
87 respectively) are situated in a local setting. Following a different path, the initiatives in Ecuador (79,0  
88 %) and Colombia (88,9 %) are numerically dominated by court decisions, rather than legislation.<sup>26</sup>

<sup>24</sup> The database also includes three ‘Rights of Nature Bans’, viz. documents that refer to RoN but are, in fact, detrimental to the movement as they attempt to hinder further development. We believe that such explicit opposition should also be documented. Together with rejected or blocked initiatives, they enter the ‘other’ or ‘overturned’ categories of the respective charts.

<sup>25</sup> The initiatives of this category are mostly issued by multinational organisations but could theoretically also concern transnational natural entities, such as border rivers or mountain ranges. One initiative is literally out of this world: the *Declaration of the Rights of the Moon*.

<sup>26</sup> Rather than representing independent initiatives, the Ecuadorian court decisions refer to, interpret, and implement the country’s constitutional Rights of Nature. In contrast, while both Ecuador and Colombia have a large share of court decisions, the latter does not have any legislative precedent.

90 The ‘natural distinction’ category shows an overall preference for not further defining the RoN entity,  
91 with ‘Nature Indistinctively’ accounting for 66,5 % of all initiatives. The second-largest class can be  
92 categorized between river and other ‘Aquatic Ecosystems’.<sup>27</sup> The two distinctions regarding animals  
93 refer to, among others, the difference between a collective and individualistic approach to Nature, as  
94 well as differing means of geolocation. While individual animals can be transported to other places,  
95 collectives, like species, are generally bound to a territory.<sup>28</sup> The moveability or even replaceability of  
96 natural entities could consequently influence the rights provisions of a specific entity. When further  
97 advancing the idea, these peculiarities should be taken into account.

98 80 % of country initiatives are clustered on the American continents. Especially noteworthy is a high  
99 concentration within the USA, making it the leader of global RoN initiatives in absolute numbers. Map  
100 2 shows the 26 US states in which 38 % of worldwide initiatives are situated. Most initiatives are located  
101 in and around the New England area. This eastern RoN accumulation correlates with the location of the  
102 Pennsylvania headquarter of the *Community Environmental Legal Defence Fund* (CELDF).<sup>29</sup> CELDF  
103 is a non-profit organisation which assisted almost all US initiatives as well as many global efforts. Their  
104 vast network might be the reason for the almost identical phrasing of most US local ordinances. The  
105 included chart on historical evolution shows that US initiatives have remained largely stable over the  
106 years. Further research is needed to identify the causes for a possible domestic legal stall.<sup>30</sup>

---

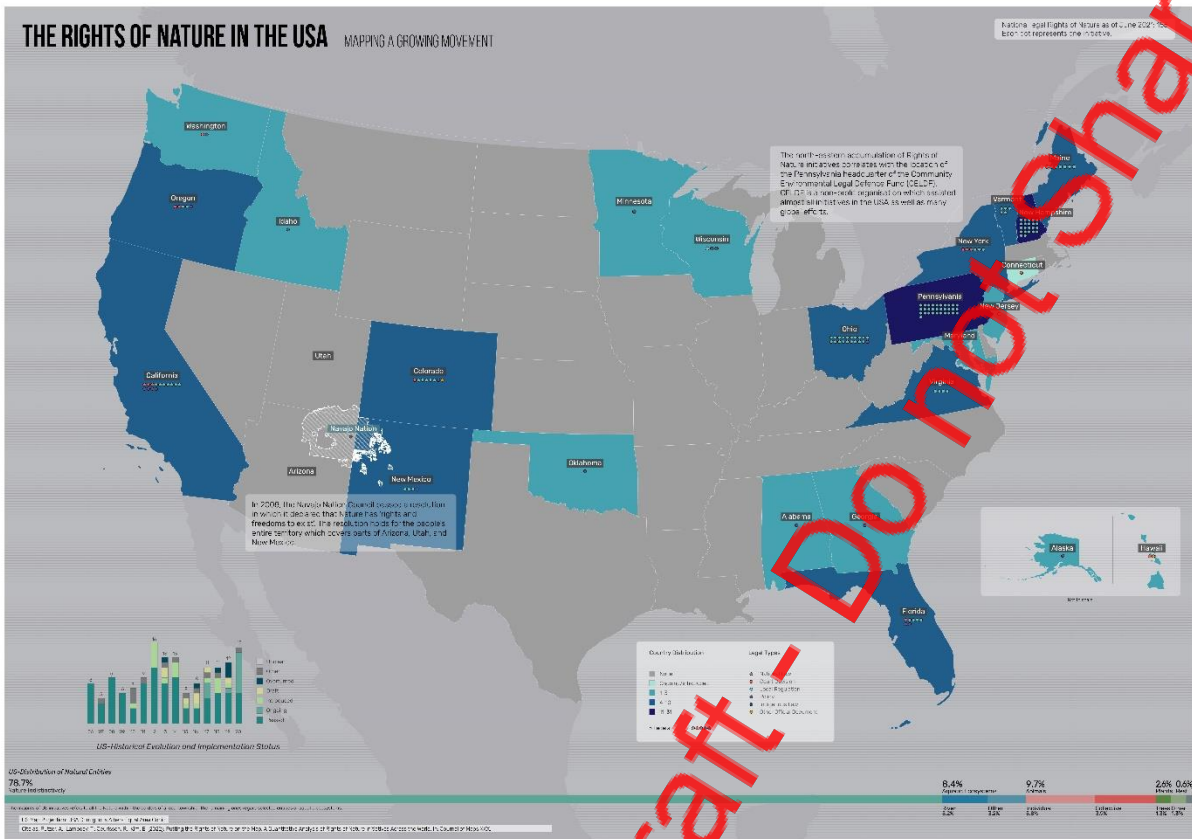
<sup>27</sup> Differences persist. The legal personhood of the Whanganui River applies only to the riverbed. The Supreme Court of Bangladesh, on the other hand, did not use any specification when it declared all rivers of the country to be legal persons.

<sup>28</sup> Sandra, an Orangutan who has been living in detrimental conditions in a zoo in Argentina, was recognized as a subject of rights. As a result, she was transported to a sanctuary in the USA.

<sup>29</sup> See <http://celdf.org/>.

<sup>30</sup> During an e-mail exchange on said topic, a CELDF representative emphasized the importance of not only a legal but also a cultural shift. The constantly growing number of RoN initiatives is accompanied by a growing awareness of both proponents and opponents of the movement. To illustrate their point, the representative uses a quote commonly attributed to Gandhi: ‘First they ignore you, then they laugh at you, then they fight you, then you win’. Referring to the rise of legislative RoN opposition, the e-mail goes on to say that “In the US, we are definitely in the ‘then they fight you’ stage.”

## Putting the Rights of Nature on the Map



Map 2: US Distribution of the Rights of Nature

107

108 While not visually represented, we have included two additional categories in our database which we  
 109 believe can advance an understanding of the movement that reaches beyond quantitative aspects. For  
 110 once, ‘Governance’ describes the legal infrastructure pertinent to each RoN initiative, thus any  
 111 established representative relationship between the natural entity and human beings. Only two-thirds  
 112 (66 %) of all initiatives specifically describe some conception of governance. They vary from some form  
 113 of specific guardianship to the right to petition for all individuals within an area or beyond. It remains  
 114 unclear what the governance conceptions in the remaining third of initiatives are.

115 The second category regards ‘Motivation’, which attempts to identify underlying mindsets. The various,  
 116 oftentimes intertwined, references require careful interpretation and further investigation.<sup>31</sup> However,  
 117 two preliminary insights can be made. First, even though around one in five initiatives refer to  
 118 indigenous beliefs (18,6 %), specific indigenous RoN law is fairly rare (2,4 %).<sup>32</sup> This relatively low  
 119 percentage is surprising since such beliefs are oftentimes cited as a crucial influence for RoN efforts  
 120 (Boyd 2017). The second point regards the two main reasons for enacting RoN, i.e. ‘anti-  
 121 corporative/capitalist sentiments’ (41,1 %) as well as the ‘human right(s) to a healthy environment’ (39,4  
 122 %). These percentages might suggest that RoN, rather than implementing the intrinsic value of Nature,  
 123 are used as yet another tool to protect arguably anthropocentric goals. Before reaching any premature

<sup>31</sup> Only 3,4 % of all initiatives do not make an explicit reference to their motivation (n/a). It is unlikely that no motivation exists. Rather, we were unable to identify it in our legal doctrinal analysis.

<sup>32</sup> Indigenous law refers to legal initiatives emerging from an Indigenous legal tradition. Such initiatives may be either part of pre-colonial Indigenous legal orders or be the result of post-colonial Indigenous legal structures.



124 conclusions about such an ‘anthropocentrism in disguise’, however, further analyses are needed also  
125 here. We invite fellow scholars to interpret these findings in more detail and are looking forward to any  
126 future insights.<sup>33</sup>

## 127 5 - Data and Database

128 Before this paper, the most comprehensive academic RoN mapping effort was carried out by Kauffman  
129 (2020). We built upon, updated, and expanded his effort by consulting a variety of global and regional  
130 lists, as well as experts on the topic.<sup>34</sup> Out of a total of ten languages,<sup>35</sup> 91,0 % of encountered legal texts  
131 were written in either English or Spanish.

132 Even though most of the existing lists offer incomplete, outdated, or even wrong information, with some  
133 simply copying others, they were nevertheless useful to grasp the size of the movement. One of the most  
134 promising non-academic approaches, since its inception in 2009, is the aforementioned UN Harmony  
135 with Nature Programme. Its biggest flaw is that their data collection is very difficult to operationalize  
136 and serve little more than anecdotal overviews, at least not without considerable reviewing.<sup>36</sup>

137 Because of this, a large part of our work regarded the reviewing process, firstly, by analysing the  
138 underlying legal texts and, secondly, by performing extensive ‘counterchecks’, thus verifying the  
139 existence of initiatives through news articles, blog posts and interviews with experts. About three  
140 quarters of all initiatives were found online. Efforts without an online presence have been identified  
141 through a myriad of mostly email correspondences. Surprisingly, some US communities were unaware  
142 of having issued a RoN initiative. They appear to be ‘forgotten’, possibly suggesting an absence of  
143 practical implications. Nevertheless, such instances of neglect are by no means representative. The vast  
144 majority of authorities and organizations which produced or initiated an initiative were aware of them  
145 and very helpful with the provision of missing data. The aforementioned CELDF, for instance, helped  
146 to complement and verify virtually all US initiatives. Through this, we became aware that their total  
147 number, including mostly older initiatives, is likely double the count we identified for this paper.

---

<sup>33</sup> Following the Economist’s *Global Democracy Index 2020*, most RoN countries are democratic. However, we do note that this index considers Bangladesh, Bolivia, Guatemala, Nigeria, and Uganda as having a ‘hybrid regime’. Put differently, so far, no clearly authoritarian country has established a RoN initiative.

<sup>34</sup> Existing lists define initiatives mostly by geographical area, type of natural entity, or legal type. However, classification was at times arbitrary and incomplete. Very few of them provided a clear indication of the initiative’s status. The major lists consulted were <http://www.harmonywithnatureun.org/rightsOfNature/>, <http://www.harmonywithnatureun.org/rightsOfNaturePolicies/>, <https://celdf.org/advancing-community-rights/rights-of-nature/rights-nature-timeline/>, <http://www.derechosdelanaturaleza.org.ec/casos-de-derechos-de-la-naturaleza-en-el-mundo/>, <https://droitsdelanature.com/la-reconnaissance-des-droits-de-la-nature>, <https://www.centerforenvironmentalrights.org/timeline>, <https://www.earthlaws.org.au/aclc/rights-of-nature/>, and <https://therightsofnature.org/timeline/>. Extensive regional databases can be found for Ecuador (<https://www.derechosdelanaturaleza.org.ec/>, <http://files.harmonywithnatureun.org/uploads/upload471.pdf>), Brazil ([www.mapas.org.br/](http://www.mapas.org.br/)), and the USA (selected websites: <https://communityrights.us/community-rights-ordinance-campaigns-across-the-us/ordinances-timeline/>, <https://cocrn.org/>, <https://www.nhcommunityrights.org/>, <https://www.nonhumanrights.org/>). Two websites offer rudimentary spatial diagrams (<https://boulder.rightsofnature.org/global-rights-of-nature-map/> and <https://therightsofnature.org/>).

<sup>35</sup> Bengali, Danish, Dutch, German, English, French, Italian, Portuguese, Romanian, and Spanish. The languages were either understood by us or by our academic partners. In exceptional cases, online translators (*DeepL* and *Google Translate*), were consulted.

<sup>36</sup> The development of the database and the taxonomy was helped by the Programme, which in turn has indicated interest to adopt the system.

148 According to the organisation, since 2006, Pennsylvania alone, the first US state to adopt legal RoN,  
149 has reportedly accumulated more than 100 initiatives before the idea started to spread to other states.  
150 However, due to a lack of distinct documentation of these early initiatives by the local communities,  
151 recollection was not possible.<sup>37</sup> All this shows that the exhaustive search for widely heterogeneous  
152 needles in a global legal haystack remains difficult. As such, we invite all readers that are aware of any  
153 mistakes or omissions to contact us.

154 Even though 409 initiatives seem like a lot, this number has continued to grow since the end of the data  
155 collection. However, the relevance of this dataset is not derived from its completeness, which is  
156 unachievable, but rather from a first structured analysis, accessible taxonomy, as well as summarizing  
157 visualization of the first 15 years of legal Rights of Nature. This investigation can consequently be used  
158 for additional inquiries. Indeed, it already serves as an intermediate step to a larger project. We are happy  
159 to announce that throughout the elaboration, our findings have substantially contributed to the creation  
160 of the so-called ‘Eco-Jurisprudence Monitor’, a website<sup>38</sup> which is currently being developed by and  
161 organized through the Global Alliance for the Rights of Nature Academic Hub.<sup>39</sup> Rather than RoN, the  
162 focus lies on the wider concept of ‘ecological jurisprudence’. The project aims at providing a carefully  
163 curated, regularly updated, and sufficiently redacted open-access database for academic and non-  
164 academic research. It is set to launch on Mother Earth Day (22 April) 2022.<sup>40</sup>

## 165 6 - Conclusions

166 The maps presented in this paper are built on a database containing all identifiable RoN initiatives  
167 around the world and serve two main purposes:

- 168 i. As the RoN movement begins to enter legal mainstream processes, reliable documentation and  
169 visualization are key. The geographical overview acts as a reference and guide for policymakers,  
170 legislators, judges, researchers, and the public at large. The taxonomy provides a basis for further  
171 research and discussion. Open access to all the information is a crucial element for these goals.
- 172 ii. Academics can use the dataset, the underlying documents, and its visualizations for their research.  
173 A variety of geographical features offer additional insights. It appears that regional peculiarities  
174 have a significant impact on the success rate of RoN. Evaluating such effectiveness will represent  
175 one of the most time- and capital-consuming yet rewarding tasks.

176 Likely our main conclusion is that RoN are not just temporary but represent a substantial, global, and  
177 lasting trend towards a non-anthropocentric human relationship with Nature. Barely older than a decade

---

<sup>37</sup> The underlying investigation was able to identify 31 Pennsylvania initiatives. The rest, as of now, are unavailable.

<sup>38</sup> It will be accessible under [www.ecojurisprudence.org](http://www.ecojurisprudence.org). The development and maintenance for the first two years are provided by a grant from the Rockefeller Brothers Fund. Unlike our database, which depends on links to external websites, the ‘EJM’ will be fully autonomous as it hosts a copy of each initiative’s documents on the project’s own servers.

<sup>39</sup> This article’s lead author is a member of this collective of academics. For more information see <https://www.garn.org/hubs/>.

<sup>40</sup> The need for such a research tool has shown to be growing and pressing. Based on an earlier version of our database, two custom maps were presented at the (ultimately unsuccessful) negotiations over the 2020 Global Framework on Biodiversity.

178 and a half, it appears to reflect the next instalment in the conceptualization of rights, offering a new form  
179 of interpreting nature-based solutions.

180

181 Software

182 The database has been compiled using Microsoft Office Excel, the paper was written with Word. Chart  
183 1 was created with Tableau, Map 1 and Map 2 were created using QGIS and Adobe Illustrator.

184

185 Acknowledgments

186 See Title Page

187

188 Funding

189 See Title Page

190

191 Open Scholarship

192 Yes.

193

194 Disclosure Statement

195 The authors declare that they have no known competing financial interests or personal relationships that  
196 could have appeared to influence the work reported in this paper.

197

198 ORCID

199 See Title Page

200

201 Tables

202 Table 1: Taxonomy of the Rights of Nature

203

204 Charts:

205 Chart 1: Historical Evolution of the Rights of Nature (including Status, since 2006)

206

207 Maps

208 Map 1: Global Distribution of the Rights of Nature

209 Map 2: US Distribution of the Rights of Nature

210

211 Data Availability

212 <https://doi.org/10.5281/zenodo.5815399>

References

- Bell, Mike** (2003): *Thomas Berry and an Earth Jurisprudence. An Exploratory Essay*. In: *The Trumpeter* 19.1. PP. 69-96.
- Boyd, David** (2017): *The Rights of Nature*. Toronto: ECW Press.
- Corrigan, Daniel P. et al.** (eds) (2021): *Rights of Nature: A Re-examination*. Oxfordshire: Routledge.
- Cullinan, Cormac** (2011): *Wild Law. A manifesto for Earth justice*. White River Junction: Chelsea Green Publishing.
- Darpö, Jan** (2021): *Can Nature Get It Right? A Study on the Rights of Nature in the European Context*. European Parliament Think Thank. Available at: [https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL\\_STU\(2021\)689328](https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2021)689328). Each website's last access: 07.07.2021.
- Deron, Bernadette** (2021): *How Wojtek The Bear Became A World War II Hero*. All That Is Interesting. Available at: [https://allthatsinteresting.com/wojtek-the-bear?utm\\_campaign=fbpdpjh&utm\\_source=facebook&utm\\_medium=social](https://allthatsinteresting.com/wojtek-the-bear?utm_campaign=fbpdpjh&utm_source=facebook&utm_medium=social).
- Dubin, Robin** (1978): *Theory Development*. New York City: Free Press.
- ELC** (2017): *Universal Declaration of River Rights*. Earth Law Center. Available at: <https://www.earthlawcenter.org/river-rights>.
- Hutchinson, Terry et al.** (2012): *Defining and Describing What We Do: Doctrinal Legal Research*. In: *Deakin Law Review* 17. PP. 83-119.
- Kauffman, Craig M. et al.** (2021): *The Politics of Rights of Nature: Strategies for Building a More Sustainable Future*. Cambridge: MIT Press.
- Kauffman, Craig M.** (2020): *Mapping Transnational Rights of Nature Networks & Laws: New Global Governance Structures for More Sustainable Development*. Harmony with Nature. Available at: <http://files.harmonywithnatureun.org/uploads/upload924.pdf>.
- Kuroski, John** (2018): *Meet Sergeant Stubby, The Canine Hero Of World War I*. All That Is Interesting. Available at: <https://allthatsinteresting.com/sergeant-stubby>.
- Lambooy, Tineke et al.** (2019): *A case for granting legal personality to the Dutch part of the Wadden Sea*. In: *Water International* 44.6-7. PP.: 786-803.
- Marshall, Andrew MacGregor** (2015): *Thai crown prince's poodle, Air Chief Marshal Foo, has been cremated*. The Guardian. In: <https://www.theguardian.com/world/2015/feb/05/thai-crown-prince-pet-poodle-air-chief-marshal-foo-foo-cremated>.
- Rabbit Hash** (2020): *Current Mayor - Brynn*. Available at: <http://www.rabbithashhistsoc.org/the-mayor/buy-votes/>.
- Roy, Eleanor Ainge** (2017): *New Zealand river granted same legal rights as human being*. The Guardian. Available at: <https://www.theguardian.com/world/2017/mar/16/new-zealand-river-granted-same-legal-rights-as-human-being>.
- Stone, Christopher D.** (1972): *Should Trees Have Standing? Towards Legal Rights for Natural Objects*. In: *Southern California Law Review* 45. PP. 450-501.
- Tănăsescu, Mihnea** (2022): *The Rights of Nature as Politics*. Oxfordshire: Routledge.

**Tănăsescu, Mihnea** (2020): *Rights of Nature, Legal Personality, and Indigenous Philosophies*. In: *Transnational Environmental Law* 9.3. PP. 429-453. <https://doi.org/10.1017/S2047102520000217>

**Taylor, Adam** (2017): *There are now 3 rivers that legally have the same rights as humans*. Washington Post. Available at: <https://www.washingtonpost.com/news/worldviews/wp/2017/03/21/there-are-now-3-rivers-that-legally-have-the-same-rights-as-humans/>.

**Warmind, Morten** (1992): *Sacred Kingship among the Celts*. In: *Proceedings of the Harvard Celtic Colloquium* 12. PP. 196-206.

**Williams, Miranda et al.** (2021): *New Governance Ways Aimed at Protecting Nature for Future Generations: The Cases of Bangladesh, India and New Zealand: Granting Legal Personhood to Rivers*. In: *IOP Conf. Series: Earth and Environmental Science* 690. PP. 1-15.

**Whetten, David A.** (1989): *What Constitutes a Theoretical Contribution?* In: *Academy of Management Review* 14.4. PP. 490-495.

**Woods, David** (2014): *Caligula, Incitatus, and the Consulship*. In: *The Classical Quarterly* 64.2. PP. 772-77

Putzer et al. 2022 - Draft - Do not Share