



Community Participation in Ecological Tourism Planning: The Case of Vampire False Cave in Island Garden City of Samal, Mindanao, Philippines

Harold Kim B. Joaquin*, Edwin M. Jansol, Jose E. Lechoncito, Jr, Dr. Joel S. Pardillo

Professional Schools, University of Mindanao, Philippines

***Corresponding Author:** Harold Kim B. Joaquin, Professional Schools - University of Mindanao
Davao City 8000, Davao del Sur, Philippines.

Abstract: Community participation in ecological tourism has been established to be of utmost importance in sustainable tourism as the active participation of the community dictates the success of tourism development especially in the decision-making process. This study sought to determine the expected level of community participation in the development of Vampire False Cave, a potential ecotourism site in the Island Garden City of Samal, Mindanao, Philippines. The research first determined the socio-economic background of respondents, followed by the measurement of their awareness to the site, community involvement, perceived benefits in ecotourism participation, and their capacity and readiness for ecotourism development. The result indicated that there is a high degree of community involvement in the event of ecotourism development given the above-mentioned parameters are satisfied. Along with identifying the economic benefits from ecotourism, a strong environmental consciousness was perceived among residents in ecotourism development. A high participatory ability among residents revealed the readiness of the community for ecotourism development which will be a great tool in the campaign of the local government for cave protection and cave resources management.

Keywords: Community participation, ecological tourism, ecotourism planning, cave tourism

1. INTRODUCTION

Ecotourism is a kind of sustainable tourism in a naturally developed and culturally diverse areas where community involvement, natural resources management, indigenous cultural community practices, and environmental education and protection are fostered towards host communities' development and visitors' satisfaction enrichment [1]. Unlike conventional tourism, most ecotourism develops in undisturbed natural environments, usually in the rural areas, which does not demand major facilities and infrastructures [2]. Most tourism developments acknowledge the increasing impact of the industry to the ecosystems of several protected areas of the world introducing both an opportunity and a threat [3]. This conflicts with the conservationist's view who both see tourists and tourism developments as a threat to the survival of endangered wildlife and the protected landscapes [4]. However, Philipps (1985) [5] contended that along with economic justification, tourism offers environmental conservation.

The realization on the role of the community in tourism development has been considered after Murphy [6] introduced the concept of community participation which was latter applied by Tosun [7-8] in tourism typology of community involvement where he classified three types of community participation in tourism development: coercive participation is a top-down, passive, and a general form of non-participation with a high degree of manipulation; induced participation characterized by a top-down, passive, and a form of pseudo-participation; and spontaneous participation which is a bottom-up, active participation of the community in the whole process of tourism development.

Community involvement is a vital tool for the success of ecotourism projects [9]. According to Tosun [8], the elected and appointed local government agencies must consult the local community for developing and managing ecotourism to meet their expectations. In this way, the planning process becomes more effective as the participants are the representatives of the whole community themselves [10]. Involvement of the host community in the decision-making making process could range from the individual residents to the whole community in activities such as employment (including women and

the informal sectors), supply of general services, enterprise, and revenue sharing, which can help curb poverty from the economic benefits of tourism [11] documented to have a similar positive results to other aspects of ecotourism including environmental conservation of natural areas, cultural resources preservation, and host community empowerment [12].

In ecotourism development and planning, the basic aim must be to provide the concerned citizens with enough information for them to participate in a meaningful way [13]. In doing so, the tourism development can be effective in reducing the negative impacts of the planned development to the ecological environments and could help promote a sustainable development for the community [14]. As Drumm [15] stated, community participation in ecotourism development must take place under the active participation and control of the local people who own the natural attraction to allow tourism to generate support for environmental conservation while deriving some benefits [16].

The tourism sector of the Philippines acknowledges ecotourism as a growing aspect in the country's regions and islands with immense natural attraction sites including the spectacular caves in the extensive karst landscape of the Philippines covering 11.7% (approximately 35,000km²) of the country's total land area that attracts many international and domestic tourists [17]. Puerto Princesa Underground River, a United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Site, is the country's most visited cave ecotourism site with a tallied yearly average visitor of roughly 270,000 from years 2011 to 2013 [18]. As of 2015, there are 2,500 known caves in the country [19], majority of which are formed from soluble limestone rocks which host an extremely diverse distribution of endemic cave fauna making them one of the most vulnerable and fragile ecosystems in the world.

The main governing cave protection law in the country is the country's Republic Act 9072, also known as the National Cave and Cave Resources Management and Protection Act of 2001. This act allows the establishment a strategic action plan with programs geared towards cave protection, conservation, and management. In relation to community participation, this law mandates to strengthen cooperation between the government and the people in the utilization of cave resources (Section 2) and calls for the active partnership of the people and several organizations in the non-government sectors in caves and cave resources protection and conservation (Section 5f) [20].

Following the cave classification system of the country, caves can be classified based on three classes [21]: Class I caves are sites with limited activities including photography, mapping, educational activities, and scientific research purposes due to a sensitive cave setting and hazardous conditions; Class II are caves containing hazardous and sensitive portions that can be seasonally or temporarily closed only allowing the entry of experienced cavers and guided tours; and Class III caves are open cave sites for the inexperienced tourists or visitors due to a generally safe conditions of the cave with regards to its geologic and natural set-up.

In 2015, 18% of the 2,500 known caves have been duly classified by the country's national environment and natural resources department and majority of which are located outside the protected areas of the country with Class II caves on the category of caves classification dominating the country's list of caves [19]. Ninety-seven percent (97%) of the Philippine caves are accounted by three main biogeographic regions – Luzon (38%), Mindanao (37%), and Negros-Panay (22%) [21]. In Southern Mindanao, Island Garden City of Samal hosts at least 70 caves occurring mainly as habitat to many cave dwelling species that are commonly bats [22]. Given this number, the potential of the city to open cave ecotourism sites is not far from reality as ecotourism spot featuring caves exist in the area including the known Monfort Bat Cave Sanctuary. There are several potential cave ecotourism sites in the area including the Vampire False Cave, which is the focus of this study, considering the participation of community in a sustainable ecotourism development and environmental conservation.

This study aimed to assess the level of community participation as a planning input in the development of Vampire False Cave in Island Garden City of Samal as an ecotourism site. The authors would like to examine the expected community involvement in ecotourism and their perceptions on the socio-economic aspects of ecotourism. This study is also aimed at evaluating the readiness and ability of the community to participate in ecotourism developments.

2. MATERIALS AND METHODS

2.1. Study Site

The Vampire False Cave is located in Purok 4, Barangay Kinawitnon, Babak District, Island Garden City of Samal, Davao del Norte, Mindanao, Philippines (07°07'21.0''N and 125°41'29.3'' E) (Figure

1). It is a solution/limestone cave named after the False Vampire Bat species (*Megaderma spasma*) found inside the cave. Based on the recent cave assessment of the local government unit, it is a Class III cave which is a generally safe site for inexperienced visitors/tourists allowing the economic utilization of caves for economic purposes (e.g., guano extraction) [23].

As of 2020, the barangay has a total population of 2,971, where farming is the major livelihood in the area that has a more or less evenly distributed rainfall throughout the year with no pronounced wet and dry season (Climate Type IV). A total of 220 indigenous peoples of the 10 tribe settlers in Brgy. Kinawitnon are living nearby the cave location with no traditional or cultural activities in the cave. Past activities in the cave include treasure hunting as typified by diggings near the cave entrance identified during cave assessment which calls for the cave management plan of the community for better cave protection and management [23].

2.2. Research Methods

The target respondents of the study were the residents that fringe the Vampire False Cave. The study utilized a combination of both probability and non-probability sampling procedures in determining participants for the survey. The questionnaire employed was divided into five main sections [2, 14]: socio-demographic characteristics of respondents, awareness of the community to the ecotourism site, expected level of community involvement in ecotourism development, community perceptions on benefits in ecotourism participation, and the capacity and readiness of the community for ecotourism development.

Fieldwork was undertaken in October 2021 by administering survey questions to the local residents near the Vampire False Cave. Limited literacy of some respondents prompted the administration of questions while observing COVID-19 safety protocol in conducting survey. Coordination with the barangay local leaders were sought before the fieldwork commenced. At the end of the fieldwork, 60 residents participated, and all questionnaires were recovered. Data collected were analyzed using statistical treatment to draw results and conclusions.

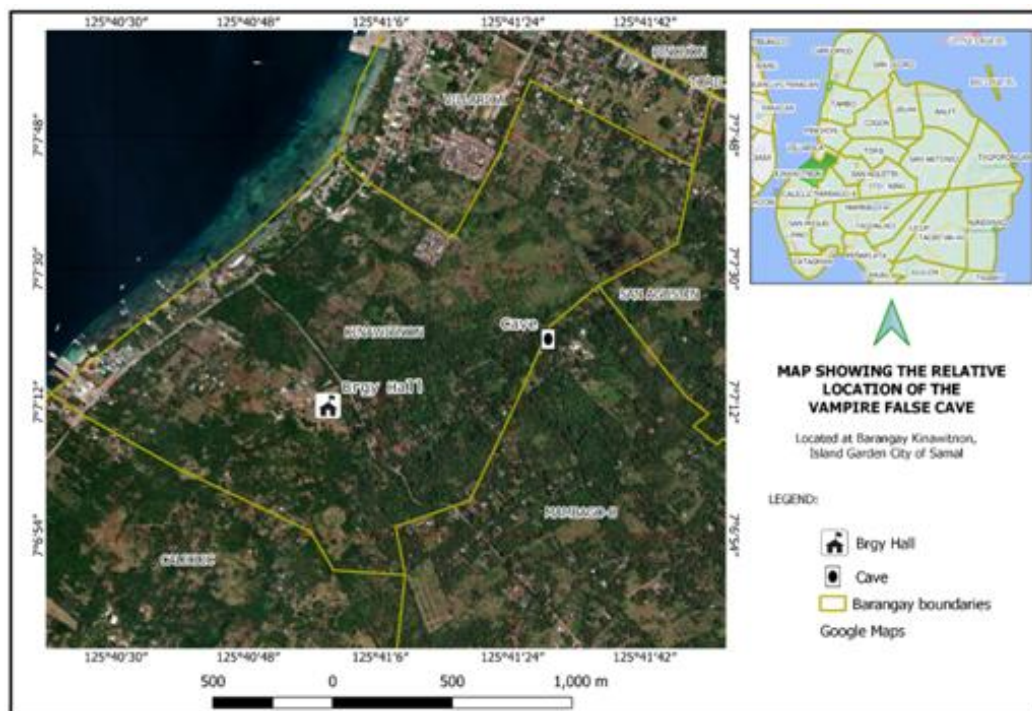


Figure1. Location of the Vampire False Cave in the Island Garden City of Samal in Mindanao, Philippines.

3. RESULTS AND DISCUSSIONS

3.1. Socio-demographic Characteristics

Table 1 shows that out of the 60 participants in the study, there were slightly more male respondents (55%) than females. Almost half of the respondents (45%) were around 20 – 29 years with fewer number of people for those 50 years old and above constituting 8% of the respondents. Nearly 65%

had acquired tertiary level of education, and 5% attained elementary education with no illiterate respondents. Therefore, there was generally a high level of education in the community. More than half of the respondents were employed either in government institutions or private companies with more than a quarter (32%) of the respondents being unemployed probably because of the job losses due to the pandemic.

3.2. Community Awareness and Involvement in Vampire False Cave

About 33% of the respondents were aware of the existence of Vampire False Cave, an indication that nearly 70% the residents were unaware of the cave probably due to the undeveloped nature of the site. The fact that majority of the respondents were unaware of the site calls for the attention of the local support units in cave management so as to heighten cave protection. Given this low level of awareness of the respondents to the Vampire False Cave, only 13% of the respondents have ever visited the site.

Due to this low level of awareness to Vampire False Cave, low levels of community involvement were indicated by the respondents in the present cave conservation (33%) and cave management or development practices (38%), and therefore might be a cause of concern in ecotourism development. In view of this, more than half of the local residents were dissatisfied with the level of community participation in present cave management (62%) (Table 2).

Table1. *Socio-demographic characteristics*

	Characteristics	Frequency	Percent
Sex			
	Male	33	55
	Female	27	45
	Total	60	100
Age			
	Below 20 years	8	13
	20 - 29 years	27	45
	30 - 39 years	12	20
	40 - 49 years	8	13
	50 years and above	5	8
	Total	60	100
Educational Level			
	Elementary	3	5
	High School	19	32
	College	38	63
	None	0	0
	Total	60	100
Occupation			
	Unemployed	19	32
	Self-employed	8	13
	Employed	33	55
	Retired	0	0
	Total	60	100

Table2. *Awareness and involvement of respondents in Vampire False Cave*

Issue	Frequency	Percent
Aware of the Vampire False Cave	20	33
Visited the site	8	13
Community actively involved in cave resources conservation	20	33
Local people involved in cave management	23	38
Satisfied with the level of community participation in cave management	23	38

3.3. Community Involvement in Ecotourism Planning and Development

In the event of ecotourism development of the site, more than half of the respondents believed the importance of prior information about the project (52%) (Table 3). Majority of the respondents agreed

on the importance of their opinions in project development to be heard (70%) and let them express their concerns on the development of the project (70%). They asserted that their interests must be considered in planning and be made part owners of the project. More than 80% acknowledged the employment potential of ecotourism development, and even considers the managerial position of local people in the project. Most residents agreed for revenue sharing, even recognizing the presence of local traders at the site. Interestingly, majority of the respondents agreed for ecotourism training and education (88%).

From the responses, employment of the local people and ecotourism training and education had the highest mean rating (2.78 and 2.88, respectively). Despite the low level of awareness to the site and dissatisfaction of the respondents to the present level of community participation in cave protection and management, majority of the respondents agreed for ecotourism training and education in ecotourism planning. Higher agreement of respondents with respect to their opinions and concerns showed that the community expects a two-way flow of information from the management of the project to the communities similar to the spontaneous participation type of Tosun in tourism development [7].

Table3. *Expected community involvement in ecotourism planning of the Vampire False Cave*

Issue	N	Responses (%)			Mean	Sd
		Disagree	Undecided	Agree		
Prior information about the project	60	2	47	52	2.50	2.01
Opinions be sought in the development of the project	60	2	28	70	2.68	2.18
Allowed to express concerns about the project	60	3	27	70	2.67	2.18
Community interests to be factored into the project	60	3	28	68	2.65	2.16
Community be made part owners of the project	60	5	33	62	2.57	2.09
Employment of local people	60	5	12	83	2.78	2.29
Managerial positions of local people	60	2	23	75	2.73	2.23
Revenue sharing with the community	60	2	28	70	2.68	2.18
Allow local traders at project site	60	7	20	73	2.67	2.19
Ecotourism training and education	60	0	12	88	2.88	2.35
Scale: 1 = disagree, 2 = undecided, 3 = agree						

3.4. Community Perceptions on Benefits in Ecotourism

In Table 4, benefits on ecotourism as perceived by the respondents were analyzed as mentioned by several studies [11][12]. Most residents thought that local economic development and increase in income of local residents will be brought by ecotourism. Ninety-percent (90%) of the respondents believed that ecotourism will increase employment opportunities for the local residents similar to the high results of Tang, et. al (2012) [17], and many are undecided on the possible impact of it to their daily lives which includes traffic congestion and increase cost of living in the area. Through ecotourism, respondents believe that it will promote and protect the local culture, and more than half (55%) disagree that it will destroy the local culture of the area/island. Most residents believed that ecotourism would contribute to the cohesion of local residents and enhance the community's ability to elevate the quality of life in the area. In environmental aspect, around 80% of the respondents believe that ecotourism will improve their environmental mindfulness, but some 3% of the residents thought that ecotourism might destroy the local natural environment.

Table4. *Perceptions on benefits in ecotourism*

Items	Issue	Responses (%)			Mean	Sd
		Disagree	Undecided	Agree		
Economic Development	Promote local economic development	0	7	93	2.93	2.39
	Increase the income of local residents	0	10	90	2.90	2.37
Social Development	Increase employment opportunities for local residents	0	10	90	2.90	2.37
	Disrupt daily lives of residents	20	42	38	2.18	1.77
Cultural Development	Promote protection of local culture	2	10	88	2.87	2.35
	Destroy local culture	55	27	18	1.63	1.28
Community Capacity Building	Enhance community cohesion	2	17	82	2.80	2.29
	Improve the quality of life of residents	3	15	82	2.78	2.28

Community Participation in Ecological Tourism Planning: The Case of Vampire False Cave in Island Garden City of Samal, Mindanao, Philippines

Environmental Protection	Protect and improve local natural environment	3	17	80	2.77	2.27
	Improve local awareness on environment protection	7	13	80	2.73	2.25
Scale: 1 = disagree, 2 = undecided, 3 = agree						

3.5. Respondents’ Participatory Ability

In the participatory ability of participants in Table 5, seventy-eight (78%) percent of the respondents stated their awareness of ecotourism, with 5% expressing their weak awareness of it. Around 72% stated they have sufficient knowledge to participate in the ecotourism planning and development. An increase in the number of undecided respondents stated their ambiguity on the spare time to participate in the process. Majority of the respondents believed that the willingness of the government to support them will allow them to participate in the said tourism development with no disagreement responses among participants.

Table5. Respondents’ ability to participate in ecotourism

Issues	Responses (%)			Mean	Sd
	Disagree	Undecided	Agree		
I have awareness of ecotourism	5	17	78	2.73	2.24
I have the sufficient knowledge to participate in ecotourism planning and development	5	23	72	2.67	2.18
I have adequate spare time to participate	3	33	63	2.60	2.11
The support of local government allows residents to participate in tourism development	0	13	87	2.87	2.34
Scale: 1 = disagree, 2 = undecided, 3 = agree					

4. CONCLUSION

This study investigated the ecotourism potential of the Vampire False Cave by looking at the community participation aspect as a planning input in ecotourism development. The findings revealed that there is a low level of community participation in present cave management and protection in the area given the low awareness of the residents to the site. In terms of ecotourism development, however, most residents expect participation in the planning and development process as a two-way process congruent to the spontaneous participation typology of Tosun [7] and express their willingness for an ecotourism training and education despite the low level of awareness to the site and dissatisfaction to the present community involvement in cave protection and management. They perceived that ecotourism would benefit the community in several aspects of their lives including economic, social, cultural, community capacity, and environmental protection. Most residents are not sure of the effect of tourism in their daily lives; however, they strongly disagree that ecotourism will destroy their culture. Also, environmental consciousness is expected to be elevated in the community due to ecotourism.

Given this, the local government can expect the active participation of the community in ecotourism development given the above-mentioned parameters are satisfied. The issue on low levels of community involvement in present cave management and protection can be remedied by involving the public in ecotourism as they are willing to undergo training in ecotourism and they acknowledged that ecotourism would promote local awareness on environmental protection enabling them to heighten their environmental consciousness to promote cave protection among themselves. This is coupled with a high level of residents’ ability to participate in ecotourism signifying the readiness of the community in ecotourism in addition to being knowledgeable in ecotourism development with the initiation of the local government to include the community in planning and development to maximize the socio-economic benefits of ecotourism.

As a Class III cave that is generally open for inexperienced tourists/visitors, the potential of the Vampire False Cave as an ecotourism site is not far from reality as most residents are optimist on the development it as an ecotourism site. The results of this study can serve as a basis on any further development actions of the local government in the protection, management, and later ecotourism development of the site in relation to community participation.

The researchers acknowledge the limitations of this study, and one of the possible rooms for improvement in the future studies is the incorporation of a considerable number of indigenous cultural

communities in the area. Also, the involvement of more participants in the study which includes the neighboring communities that might be affected by the tourism project which was not achieved by the authors might be examined. Nevertheless, the researchers believe that the result of this study will be an instrument to help the local government in their quest for a sustainable, and a pro-environment ecotourism development.

ACKNOWLEDGMENTS

The authors would like to thank the Barangay Officials and residents of the Brgy. Kinawitnon of Samal Island for their logistical support during fieldwork in conducting the study. Special thanks to Dr. Joel S. Pardillo who provided unselfish assistance and guidance on the study.

REFERENCES

- [1] National Ecotourism Steering Committee, and Ecotourism Technical Working Group. National Ecotourism Strategy and Action Plan 2013-2022. Feb. 2014. Retrieved from <https://www.scribd.com/document/294540476/National-Ecotourism-Strategy-and-Action-Plan-2013-2022>.
- [2] Mensah, I., & Ernest, A. (2013). Community participation in ecotourism: the case of Bobiri Forest Reserve and Butterfly Sanctuary in Ashanti Region of Ghana. *American Journal of Tourism Management*, 2(1A), 34-42
- [3] Goodwin, H. (1996). In pursuit of ecotourism. *Biodiversity and Conservation*, 5, 277-291
- [4] Coppock, J. (1982). Tourism and conservation. *Tourism Management*, 3, 270-275
- [5] Phillips, A. (1985). *Tourism, Recreation and Conservation in National Parks and Equivalent Reserves*. Derbyshire: Peak Park Joint Planning Board
- [6] Murphy, P. (1985). *Tourism: a community approach*. Methuen: New York and London
- [7] Tosun, C. (1999). Towards a typology of community participation in the tourism development process. *International Journal of Tourism and Hospitality*, 10, 113-134
- [8] Tosun, C. (2006). Expected nature of community participation in tourism development. *Tourism Management*, 27, 493-504
- [9] Simmons, D. (1994). Community participation in tourism planning. *Tourism Management*, 15, (2), 98-108
- [10] Buanes, A., Jentoft, S., Maurstad, A., Soreng, S., & Karlsen, G. (2005). Stakeholder participation in Norwegian coastal zone planning. *Ocean and Coastal Management*, 48, (9/10), 658-669
- [11] Scheyvens, R. (2007). Exploring the tourism-poverty nexus. *Current Issues in Tourism*, 10, (2/3), 231-254
- [12] Brandon, K. (1993). Basic steps toward encouraging local participation in nature tourism project. In K, Lindberg, & D. Hawkins (Eds.), *Ecotourism: A guide for planners and managers* (pp. 134-151). The Ecotourism Society, North Bennington, Vermont.
- [13] Keogh, B. (1990). Public participation in community tourism planning. *Annals of Tourism Research*, 17, 449-465
- [14] Tang, C., Zhong, L., & Cheng, S. (2012). Tibetan attitudes towards community participation and ecotourism. *Journal of Resource Ecology*, 3(10), 008-015
- [15] Drumm, A. (1998). New approaches to community-based ecotourism management. In K. Lindberg, M.E. Wood, & D. Engeldrum (Eds.), *Ecotourism, a guide for planners and managers*, (Vol. 2). The Ecotourism Society: North Bennington, Vermont.
- [16] Kiss, A. (2004). Is community-based ecotourism a good use of biodiversity conservation funds? *Trends in Ecology and Evolution*, 19,(5), 232-237
- [17] Yu, S. (2019). Paraisong Nawala: Exploring sustainable ecotourism in the Philippines (Undergraduate thesis, Scripps College, Claremont, California). Retrieved from https://scholarship.claremont.edu/cgi/viewcontent.cgi?article=2524&context=scripps_theses
- [18] Puerto Prinsesa Subterranean River National Park – Protected Area Management Board (PPRSNP-PAMB). (2014, July). *Financial Report*.
- [19] Department of Environment and Natural Resources – Biodiversity Management Bureau (DENR-BMB). (2019). *Cave Management, Protection and Conservation Strategy and Action Plan (CMPCSAP)*. Retrieved from https://bmb.gov.ph/downloads/BPKMD/proposed_p/cmpcsap_2019-2028.pdf
- [20] Gera, W. (2014). Public participation in environmental governance in the Philippines: The challenge of consolidation in engaging the state. *Land Use Policy*, 52(2016), 501-510. doi:10.1016/j.landusepol.2014.02.021
- [21] Department of Environment and Natural Resources – Protected Areas and Wildlife Bureau (DENR-PAWB). (2009). *Cave Classification Handbook*. Quezon City: PAWB-NEF

- [22] Quibod, M., Alviola, P., de Guia, A., Cuevas, V., Lit Jr., I., & Pasion, B. (2019). Diversity and threats to cave dwelling bats in a small island in the southern Philippines. *Journal of Asia-Pacific Biodiversity*. doi:/10.1016/j.japb.2019.06.001
- [23] Department of Environment and Natural Resources Office (2019). Vampire False Cave Assessment Report (Unpublished report).

Citation: Harold Kim B. Joaquin, et.al. "Community Participation in Ecological Tourism Planning: The Case of Vampire False Cave in Island Garden City of Samal, Mindanao, Philippines". *International Journal of Research in Tourism and Hospitality (IJRTH)*, vol 7, no. 2, 2021, pp. 32-39. doi: <https://doi.org/10.20431/2455-0043.0702004>.

Copyright: © 2020 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.