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Biodiversity of Parvati Arga Bird Sanctuary: A Review

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Abstract

Wetlands are an important component of our natural environment and play a crucial role in supporting biological diversity. Wetlands are considered hotspots of and provide diverse ecosystem services and habitat to a multitude of flora and fauna. Parvati Arga Bird Sanctuary, situated in Gonda district of Uttar Pradesh, is one of the largest natural floodplain wetlands in the state. Parvati Arga wetland comprises a pair of oxbow lakes protected as bird sanctuary and is designated as a Ramsar Site. The wetland harbours a rich diversity of flora and fauna and is home to many rare and migratory avifauna. The present review deals with providing a comprehensive profile of biological diversity of this wetland. Relevant literature has been collected from various platforms such as government reports and online platforms. Hence, an elaborate account of the wetland's floral and faunal diversity has been presented in this review article.

Keywords- Parvati Arga Bird Sanctuary, wetlands, biodiversity, Ramsar Site

Introduction

The term "biodiversity" which is most commonly used to describe the number of species, was first used in its long version as "biological diversity" by Lovejoy (1980). DeLong (1996)defined biodiversity as an attribute of an area which specifically refers to the variety within and among various living organisms, biotic communities and processes, whether naturally occurring or modified by humans. Biodiversity is usually measured in terms of genetic diversity and the number and identity of various types of species, biotic communities, and biotic processes and the amount and structure of various components *viz.* abundance, biomass, cover and rate. Biodiversity can also also be observed and measured at any spatial scale ranging from microsite and habitat patches to the whole biosphere (Swingland, 2001). Precisely, biodiversity is a comprehensive term for the degree of nature's variety, including the number as well as the frequency of ecosystems, species and genes in a given assemblage (Mc Neely, 1988).

Biodiversity is of utmost importance in the planet's survival because as a result of it people have food, raw material for industry and construction work and medicine and and also the basis for all improvements to domesticated plants and animals. Biodiversity not only helps in maintaining ecosystem services and evolutionary processes but also stores cycles nutrients vital for life, *viz.* carbon, nitrogen and oxygen. Biodiversity absorbs and breaks down pollutants, including heavy metals, pesticides and organic waste. Biodiversity also recharges groundwater, buffers extreme water conditions and protects catchments. It is estimated that these are approximately 1.4 to 1.8 million species which probably constitute less than 20% of all species present on Earth, and with only about 20,000 new species of all organisms being described each year (Stork, 2009).

Wetlands are one of the major ecotonal ecosystems present in the biosphere. The Ramsar Convention (signed in 1971), which provides a scientific framework for the conservation and proper use of wetlands, defines wetlands as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water which is flowing or static, salty or brackish, including areas of marine water the depth of which does not exceed six metres, at low tide". Wetlands provide distinct ecosystem services and are considered biodiversity hotspots as it harbours and attracts multitude of flora and fauna.

Parvati Arga Bird Sanctuary, situated in Gonda district of Uttar Pradesh, is one of the largest natural floodplain wetlands in the state. Formed in the Terai region of Gangetic plains and covering an area of approximately 722.8 hectares, the sanctuary harbours a rich diversity of flora and fauna. The wetland lies under Tarabganj tehsil of Gonda district and comprises two freshwater oxbow lakes, one is Parvati and the other is Arga, and so named because these are situated near an old Shiva-Parvati temple. The area has been declared as a bird sanctuary on 23rd May, 1990, as it harbours several rare and migratory avifauna. Also, the sanctuary provides wintering and breeding grounds to a number of migratory and local aquatic bird species. Parvati Arga Bird Sanctuary has been designated as a Ramsar Site on 2nd December, 2019.

Parvati Arga wetland experiences tropical climate with hot waves during summer season followed by rainy and winter season. During summers the temperature goes upto 45°C while in winters, it lowers upto 5°C. The wetland remains full of water throughout the year despite experiencing extreme hot (Khanna, 2015). According to RIS 2020 data, the average rainfall is around 1240 mm. Sandy loam soil is present. Parvati Arga wetland is a part of the Gangetic Plains whose soil consists of serially compacted layers of sand The soil of the region is alluvium found in the flood plains of Ganga River. The depth of the alluvium is good and in certain locations it can be excavated to a depth of 100m without finding any evidence of bedrocks. Areas of sandy alluvium is surrounded by jheel (local name for shallow wetland) and the substrate of the jheel bed has high humus content. The wetland usually has a permanent presence of water, the predominant source of which is rainwater. This feeds the ground water and also keeps the water levels largely stable. pH of water is circumneutral (5.5-7.4). Water salinity is less than 0.5g/l thus constituting

fresh water. Mesotrophic condition prevails in the water i.e. moderate amount of suspended nutrients are present in the water.

The sanctuary harbours a rich floral and faunal diversity and is home to several rare and migratory avifauna. The reason for which is attributed to the favourable physical components existing in the area. The floristic survey (Khanna, 2015) of the wetland indicates high number of species richness. In terms of flora, the wetland harbours approximately 37 species from 7 families and 64 species from 7 families of fauna (RIS, 2020). According to RIS (2020), the site comes under category A4iii of the Important Bird Area (IBA) criteria. Approximately 135 species belonging to 33 families of avifauna are found here. Given the rich floral diversity of the wetland, the site is extremely favourable for breeding and roosting of avifauna. According to RIS (2020), Parvati Arga

Material and method:

Literature review related to Parvati Arga Bird Sanctuary was carried out. Various online sources and platforms such as Google Scholar, Shodh Ganga, Connected Papers were used to collect the existing data of the site. Other online sources such as Plant Net, POWO (Plants of the World Online), WFO (World Flora Online) and IUCN Readlist of Threatened species were also consulted. Forest Department, Sohelwa Wildlife Division, Balrampur was also contacted to gather information regarding Parvati Arga Bird Sanctuary and the ongoing government projects occurring in and around the research site. A comprehensive account of the biodiversity of the site is presented in the paper.

Result and discussion:

Parvati Arga Bird Sanctuary harbours a rich diversity of flora and fauna and is home to various rare and migratory bird species (avifauna) (Singh, 2015). Around 136 species of plants *viz.* terrestrial plants, grasses, hydrophytes and pteridophytes and lower plant group such as algae, fungi and phytoplanktons are present here. The faunal diversity includes around 153 avifaunal species, 39, 7, 20 and 15 species of pisces, amphibia, reptile and mammal respectively (Saryu canal project). Parvati Arga Bird Sanctuary consists of a large wetland in the form of lake which is rich in avifaunal diversity along with different fish species. Also, the wetland harbours many rare, threatened, common, native and migratory birds. These floodplains play a crucial role in supporting and maintaining fish diversity and the wetland is a breeding and spawning ground for many riverine fish species Also, a variety of reptiles, insects and mammals are also sighted in the sanctuary. Besides, many animal species which are native to the Indian subcontinent are found in the wetland (RIS, 2020). An elaborate account of the faunal diversity of Parvati Arga Bird Sanctuary is presented below.

Fauna

The wetland is a breeding and spawning ground for many riverine fish species *viz.* roho labeo (*Labeo rohita*), mud eel (*Monopterus cuchia*), red swamp crayfish (*Procambarus clarkii*), mrigal carp (*Cirrhinus mrigala*) and Indian mottled eel (*Anguilla bengalensis*). Also, a variety of reptiles like Brahminy skink (*Mabuyacarinata*), garden lizard (*Varanus bengalensis*), krait (*Bengarus caerulens*), insects- Butterflies: plain tiger, common mormon and mammals: Nilgai *(Boselaphus*

tragocamelus) are also sighted in the sanctuary. Besides, many animal species which are native to the Indian subcontinent such as Blue bull (*Boselaphus bagocamelus)* and Chital *(Axis axis)* found in the wetland (RIS, 2020). According to RIS (2020), the site comes under category A4iii of the Important Bird Area (IBA) criteria. Approximately 135 species belonging to 33 families of avifauna are found here. The wetland is a wintering ground for the following bird species- Northern shoveler , Green-winged Teal, Eurasian Teal, Godwall, Common Pochard, Tufted Duck, Ferruginous Duck. Certain species such as Oriental Darter, Darter, Greater Spotted Eagle, Woolly necked Stork, Black-necked Stork, White-rumped Vulture, Purple Gallinule and Black-headed Ibis, use wetland as habitat and contribute to its biodiversity. Whereas for certain species, the wetland provides habitat and and hence these species contribute to the biodiversity of the site. These include Sarus Crane, Indian Vulture, Painted Stork, Egyptian Vulture, Indian Cormorant and River Tern.

Table 1- IUCN Red List of Avifaunal diversity of Parvati Arga Bird Sanctuary (RIS, 2020)

S.No.	*Scientific name*	Common name	IUCN status
1	*Anas clypeata*	Northern shoveler	LC
2	*Anas crecca*	Eurasian Teal	LC
3	*Anhinga melanogaster*	Oriental Darter	NT
4	*Aquila clanga*	Greater-spotted Eagle	VU
5	*Aythya clanga*	Common Pochard	VU
6	*Aythya fuligula*	Tufted Duck	LC
7	*Aythya nyroca*	Ferruginous Duck	NT
8	*Ciconia episcopus*	Woolly-necked Stork	VU
9	*Threskiornis melanocephalus*	Black-headed Ibis	NT
10	*Sterna aurantia*	River Tern	NT
11	*Porphyrio martinica*	Purple Gallinule	LC
12	*Phalacrocorax fuscicollis*	Indian Cormorant	LC

S.No.	*Scientific name*	Common name	IUCN status
13	*Neophron percnopterus*	Egyptian Vulture	EN
14	*Micteria leucocephala*	Painted Stork	NT
15	*Gyps indicus*	Indian Vulture	CR
16	*Gyps bengalensis*	White rumped Vulture	CR
17	*Grus antigone*	Sarus crane	VU
18	*Ephippiorhynchus asiaticus*	Black-necked Stork	NT
19	*Anas stripera*	Gadwall	LC

According to the data collected from the Forest department, the following bird species constitute the avifaunal diversity of Parvati Arga Bird Sanctuary:

Great Crested Grebe, Little Grebe, Large Cormorant, Indian Shag, Little Cormorant, Darter Grey Heron, Purple Heron, Little Green Heron, Pond Heron, Cattle Egret, Large Egret, Smaller Egret, Little Egret, Night Heron, Little Bittern, Cheshunut Bittern, Yellow Bittern, Black Bittern, Gadwall, Painted Stork, Pigeon, Open billed Stork, Garganey, White necked Stork, Shoveller, White Stork, Red crested, Black Stork Pochard, Black necked Stork, Common Pochard, White Ibis, White Eye, Black Ibis, Pochard, Spoon Bill, Tuffed Duck, Grey Leg Goose, Cotton Teal, Bar headed Goose, Comb Duck, Lesser Whistling, Black Winged Kite, Teal, Black Crested Baza, Brahminy Duck, Black Kite, Pintail, Pariah Kite, Common Teal, Brahminy Kite, Spot billed Duck, Goshawk, Mallard, Sparrow Hawk, White Eyed Buzzard, Tawny Eagle, Great Spotted Eagle, Lesser Spotted

Eagle, Black Eagle, Pallas's Fishing Eagle, Grey Headed, Fishing Eagle, Indian Griffon, Hen Harrier, Pied Harrier, Marsh Harrier.

According to the data collected from the **forest department**, the following bird species constitute the RET (Rare, Endangered, Threatened) avifaunal diversity of Parvati Arga Bird Sanctuary:

Table 2 - RET Avifaunal Species of Parvati Arga Bird Sanctuary (Forest dept.)

S.No.	RET Category	Bird species
1	Critically Endangered	1. White rumped Vulture 2. Indian Vulture

S.No.	RET Category	Bird species
2	Endangered	1. Black-bellied Tern 2. Yellow busted Bunting 3. Egyptian Vulture
3	Vulnerable	1. Woolly-necked Stork 2. Lesser Adjutant 3. Indian spotted Eagle 4. Green spotted Eagle 5. Sarus crane 6. Great Slaty Woodpecker
4	Near Threatened	1. Oriental Darter 2. Painted Stork 3. Black-necked Stork 4. Black-headed Ibis 5. Ferruginous Duck 6. Lesser Fish Eagle 7. Grey-headed Fish Eagle 8. Pallid Harrier 9. Red-headed Falcon 10.River Lapwing 11.River Tern 12.Ashy-headed green Pigeon 13.Alexadrine Parakeet

Flora

The floristic survey (Khanna, 2015) of the wetland indicates high number of species richness. A total of 153 species (angiosperms and pteridophytes) belonging to 106 genera and 47 families are found in Parvati Arga wetland. The detailed examination points out that 37 species are aquatic, 46 species are marshy, 9 species are both aquatic and marshy, 3 species are marshy and also present in moist places whereas 58 species occur in moist places.Assessment of the aquatic flora (Singh et.al., 2016) shows that hydrophytes are commonly found in the 'tals', 'nalas 'and other water reservoirs with low lying areas. Most of the tals hold water throughout the year but only a few smaller and less deeper ones may dry up during the summers. These lakes get filled with water during the rainy season as part of Saryu river flood area. As the flood water subsides, these waterbodies get roofed with a number of hydrophytes *viz. Eichhornia crassipes, Hygroryza aristrata, Pistia stratiotes, Spirodela polyrrhiza, Cerataphyllum demersum, Hydrilla verticillata, Najas graminea, Nechamandra alternifolia, Ottelia alismoides, Potamogeton crispus, Nelumbo mucifera, Nymphaea nouchali, Nymphoides indica, Ipomoea aquatica, Ludwigia*

adscendens, Bacopa monnieri, Hygrophila auriculata, Phragmitis kerka, Rananculus sceleratus, Rumex dentatus, Typha angustifolia and Veronica anagallis-aquatica.

According to the data collected from the forest department, the following plant species constitute the aquatic flora of Parvati Arga Bird Sanctuary: Patera, pond weed, horned pond weed, bushy pond weed, arrow head, water plantain, wild celery, slough grass, foxtail, love grass, reed grass, Georgia grass, Bahama grass, tape grass, wild rice and other species.

Table 3 - Floral diversity of Parvati Arga Bird Sanctuary (Khanna, 2015)

S. No.	**Plant group**	**Family**	***Species***
1	Pteridophyte	Marsileaceae	*Marsilea minuta* L. *Azolla pinnata* R.Br. *Salvinia natans* (L.) All.
2	Angiosperm	1. Ranunculaceae	*Ranunculus sceleratus* L.
		2. Nymphaceae	*Nymphaea nouchali* Burn.f. *Nymphaea pubescens* Willd.
		3. Brassicaceae	*Rorippa indica* (L.) Hiern
		4. Caryophyllaceae	*Polycarpon prostratum* (Forssk.) Asch. & Schweinf. *Spergula arvensis* L.
		5. Portulacaceae	*Portulaca oleracea* L.
		6. Elatinaceae	*Bergia ammannioides* Roxb.ex Roth
		7. Tiliaceae	*Corchorus aestuans* L. *Corchorus capsular* L. *Corchorus olitorius* L. *Triumfetta pentaedro* A.Rich
		8. Oxalidaceae	*Biophytum sensitive* (L.) DC *Oxalis corniculata* L.
		9. Fabaceae	*Aeschynomene aspera* L. *Aeschynomene indica* L. *Medcago polymorpha* L. *Melilotus alba* Medik. ex Dear.
		10. Mimosaceae	*Neptunia oleracea* Lour
		11. Rosaceae	*Potentilla supina* L.

S. No.	Plant group	Family	*Species*
		12. Lythraceae	*Ammannia baccifera* L. *Ammannia multiflora* Roxb. *Rotala densiflora* (Roth ex Roem. & Schult) Koehne *Rotala rotundifolia* (Roxb.) Koehne
		13. Onagraceae	*Ludwigia octovalis* (Jacq.) Raven *Ludwigia perennis* L. *Ludwigia prostrata* Roxb.
		14. Apiaceae	*Centella asiatica* (L.) Urban *Oenanthe javanica* (Blume) DC
		15. Rubiaceae	*Hedyotis corymbosa* (L.) Lam
		16. Asteraceae	*Acmella paniculata* (Wall. ex DC) R.K.Jansen *Eclipta prostrata* (L.) L. *Enhydra fluctuans* Lour. *Gnaphalium pensylvanicum* Willd. *Gnaphalium polycaulon* Pers.
		17. Primulaceae	*Anagallis arvensis* L.
		18. Menyanthaceae	*Nymphoides hydrophylla* (Lour.) Kuntze *Nymphoides indica* (L.) Kuntze
		19. Convulvulaceae	*Evolvulus nummularius* (L.)L. *Ipomoea aquatic* Forssk. *Ipomoea carnea* Jacq.
		20. Solanaceae	*Physalis minima* L. *Solanum nigrum* L.
		21. Scrophulariaceae	*Bacopa monnieri* (L.) Wettest. *Limnophila chinensis* (Osb.) Merr. *Limnophila indica* (L.) Druce *Lindernia crustacea* (L.) F.v. Muell *Mazus pumilus* (Burm.f.) Steenis *Veronica anagallis-aquatica* L.
		22. Lentibulariaceae	*Utricularia aurea* Lour. *Utricularia exoleta* R.Br. *Utricularia stellar* L.f.
		23. Acanthaceae	*Hydrophila auricular* (Schumach.) Heine *Hydrophila polysperma* (Roxb.) T. Anderson *Hydrophila salicifolia* (Vahl) Nees *Justicia diffusa* Willd *Ruellia prostrata* Poir

S. No.	Plant group	Family	*Species*
		24. Verbenaceae	*Phyla nodiflora* (L.) E. Greene
		25. Lamiaceae	*Leucas aspera* (Willd) Link *Micromeria capitellata* Benth. *Salvia plebeia* R.Br.
		26. Amaranthaceae	*Alternanthera sessilis* (L.) R.Br. ex DC.
		27. Chenopodiaceae	*Chenopodium murale* L.
		28. Polygonaceae	*Persicaria barsata* (L.) Hara *Persicaria decipiens* (R.Br.) KL Wilson *Persicaria glabra* (Willd.) Gomez *Persicaria lapathyfoliza* (L.) Delarbre *Polygonum plebeium* R.Br. *Rumex dentatus* L.
		29. Euphorbiaceae	*Euphorbia hirta* L. *Euphorbia thymifolia* L. *Phyllanthus fraternise* G.L. Wester
		30. Ceratophyllaceae	*Ceratophyllum dermersum* L.
		31. Hydrocharitaceae	*Hydrilla verticillata* (L.f.) Royle *Lagarosiphon alternifolia* (Roxb.) Druce *Ostelia alismoides* (L.) Pers *Vallisneria spiralis* L.
		32. Orchidaceae	*Zeuxine strteumatica* (L.) Schlechter
		33. Pontederiaceae	*Eichhornia crassipes* (Mart.) Solms *Monochoria hastata* (L.) Solms. *Monochoria vaginalis* (Burm.f.) K. Presl
		34. Commelinaceae	*Commelina benghalensis* L. *Commelina caroliniana* Walter *Commelina suffruticosa* Blume *Cyanotis axillaris* (L.) D.Don ex Sweet *Murdannia nudiflora* (L.) Brenan
		35. Typhaceae	*Typha angustifolia* L.
		36. Araceae	*Colocasia esculenta* (L.) Schott.
		37. Lemnaceae	*Lemna perpusilla* Torr. *Spirodella polyrhiza* (L.) Schleid *Wolffia arrhiza (L.)* Horkel ex Wimm

S. No.	Plant group	Family	*Species*
		38. Alismataceae	*Limnophyton ostusifolium* (L.) Mia. *Sagittaria guayanensis* Humb. *Sagittaria trifolia* L.
		39. Limnocharitaceae	*Butomopsis latifolia* (D.Don) Kunth
		40. Najadaceae	*Najas graminea* Delile
		41. Aponogetonaceae	*Aponogeton natans* (L.) Engl. & K.Krause *Aponogeton undulats* Roxb.
		42. Potemogetonaceae	*Potamogeton crispus* L. *Potamogeton nodosus* Poir.
		43. Zannichelliaceae	*Zannichellia palustri* L.
		44. Cyperaceae	*Anosporum cephalotes* (Vahl) Kura *Cyperus alulatus* Kern *Cyperus corymbosus* Rottb. *Cyperus difformis* L. *Cyperus exaltatus* Retz. *Cyperus rotundus* L. *Eleocharis acutangula* (Roxb.)Schult. *Eleocharis atropurpurea* (Retz.) J.Presl & K.Presl *Eleocharis dullish* (Burm.f.) Hensch *Fimbristylis aestivalis* (Retz.) Vahl *Fimbristylis bisumbellata* (Forssk.) Bubani *Fimbristylis dichotomy* (L.) Vahl *Fimbristylis ferruginea* (L.) Vahl *Fimbristylis miliacea* (L.) Vahl *Juncellus alopecuroides* (Rottb.) C.B.Clarke *Juncellus pygmaeus* (Rottb.) C.B.Clarke *Kyllinga brevifolia* Rottb. *Kyllinga nemoralis* (J.R. Forster & G. Forster) Dandy ex. Hutch & Dalziel *Kyllinga tenuifolia Steud.* *Marcus compacts* (Retz.) Boldingh *Rikliella squamosa* (L.) J. Roynal *Schoenoplectus articulates* (L.) Palla *Schoenoplectus juncoides* (Roxb.) Palla *Schoenoplectus lateriflorus* (J.F. Gmel) Lye *Schoenoplectus mucronatus* (L.) Palla *Scirpus tuberosus* Desf.

S. No.	Plant group	Family	*Species*
		45. Poaceae	*Alloteropsis cimicina* (L.) Stapf *Arundo Dona* L. *Cyanodon dactylon* (L.) Pers. *Desmostachyabipinnata* (L.) Stapf *Echinochloa crusgalli* (L.) P.Beauv. *Eleusine indica* (L.) Gaertn. *Eragrostis tenella* (L.) P. Beauv. ex. Roem. & Schult. *Hemarthria compressa* (L.f.) R.Br. *Hygroryza aristata* (Retz.) Nees ex. Wight & Arn. *Oplismenus burmannii* (Retz.) P. Beauv. *Oryza minuta* J. Presl ex K. Presl *Oryza nufipogon* Griff. *Panicum paludosum* Roxb. *Paspalidium flavidum* (Retz.) A. Camus *Paspalidium geminates* (Forssk.) Stapf *Paspalidium punctatum* (Burm f.) A. Camus *Paspalum vaginatum* SW. *Pennisetum pedicellatum* Trin. *Phragmites vallatoria* (Pluk. ex. L.) Veldkamp *Setaria intermedia* Roem. & Schult. *Vetiveria zizanioides* (L.) Nash

References:

- DeLong, D. C. (1996). Defining biodiversity. *Wildl. Soc. Bull.* 24, 738–749.
- Khanna, K.K. (2015). Aquatic and marshy plants of Parvati Arga wetland, Gonda district, Uttar
- Pradesh, India. J.Econ.Taxon.Bot. 39(2): 392-406.
- Lovejoy, T. E. (1980). *The Global 2000 Report to the President* (G. O. Barney, ed.), Vol. 2, The Technical Report, pp. 327–332. Penguin, New York
- McNeely, J. A. (1988). Economics and biological diversity: developing and using economic incentives to conserve biological resources. Iucn.
- Nigel E. Stork, Chapter 21 - Biodiversity, Editor(s): Vincent H. Resh, Ring T. Cardé, Encyclopedia of Insects (Second Edition), Academic Press, 2009, Pages 75-80, ISBN 9780123741448, https://doi.org/10.1016/B978-0-12-374144-8.00021-7. (https://www.sciencedirect.com/science/article/pii/B9780123741448000217).
- Rejuvenation of Parvati Arga Lakes through link of Saryu Canal to Arga lake.
- Ramsar Convention (1971). Ramsar, Iran, 2.2. 1971.
- Ramsar Information Sheet RIS (2020). Site no. 2416. Parvati Arga Bird Sanctuary, India.
- Singh V (2015) Rare Sighting of Nearly Threatened Grey-Headed Fish-Eagle *Icthyophaga Ichthyaetus* (Horsfield, 1821) From Tikri Reserve Forest of Eastern Uttar Pradesh, India. *Indian Forester* 141(10): 1104–1105.

- Singh V, Srivastava SK & Tewari LM (2016) Floristic assessment of different habitats of Parvati Aranga wildlife sanctuary and adjacent Tikri forest area, Gonda, Uttar Pradesh, India. *Tropical Plant Research* 3(3): 543–550].
- Swingland, I.R. 2001. Definition of Biodiversity, Encyclopaedia of Biodiversity Volume1. 377-391. Academic Press.

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