Multispecies Ethnography: Life Writing of Marine Animals in Cuthbert Collingwood

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Abstract

Prior to the mid-nineteenth century, Formosa (now Taiwan) was little known to European and American travelers. To explore this terra incognita, plenty of Western explorers, navy investigators, merchants, and naturalist scientists visited Formosa after the opening of Ta-kau Port and Keelung Port for trade in 1860. These travelers made observations and documented the unknown landscapes, natural resources, or birds, flora and fauna of Formosa. This essay focuses on the works of an English traveler in this period — Cuthbert Collingwood (1826-1908): it centers on Collingwood's life writings on Formosan marine animals. It argues that Collingwood is a pioneer of the genre of "multispecies ethnography" which is evidenced in his 1868 text entitled *Rambles of a Naturalist on the Shores and Waters of the China Sea.* It addresses the following questions: how did Collingwood represent Formosan oceanic animals and their habitats in *Rambles of a Naturalist*? How might Collingwood's life accounts of Formosa's marine animals present lively interspecies relationships and express his proto-ecological sensibilities, thus making Collingwood become a pioneer of the genre of multispecies ethnography?

Keywords: Marine animals, Mid-nineteenth-century Formosa, Multispecies ethnographies, Cuthbert Collingwood

While ecocriticism emerged as a thriving and notable field of literary study over the past couple of decades, life writing on nonhuman nature has also become a flourishing area of research.[1] At the dawn of the twenty-first century, a new genre and approach of life writing on nonhuman nature emerges — multispecies ethnography. Multispecies ethnography offers life accounts or stories about nonhumans;[2] it recognizes nonhumans as "narrative subjects whose stories matter" (de Gennaro 315). As Mara de Gennaro postulates in "Multispecies Stories, Subaltern Futures," multispecies ethnography tends to encompass "multiple interspecies relationships and their ecological significance, with humans rarely prominent and never independent" (316). Multispecies ethnography is about "passionate

immersion in the lives of nonhumans" and it is concerned with notions of relatedness and the entangled quality of life on earth (Dooren and Rose 85). A multispecies approach to ethnography, in other words, engages with varied webs of interspecies dependence and "the alterworlds of other beings" (Kirksey and Helmreich 553). Multispecies ethnographers situate their works "within ecological concerns" (Kirksey and Helmreich 548). And multispecies ethnography responds to a world in which all life is involved in diverse forms of responsiveness; it is grounded in recognition as a mode of encounter that "aims for the greatest range of sensitivities to earth others" (Dooren and Rose 82). To awaken readers' "genuine care and concern" for nonhuman nature, multispecies ethnography focuses on habitats, habits, and the life and death of living beings on earth (de Gennaro 316); these living beings include marine animals.[3] This essay focuses on representations of marine animals in the works of an English traveler in this period — Cuthbert Collingwood (1826-1908): it centers on Collingwood's life writings about Formosan oceanic animals. It argues that Collingwood is a pioneer of the genre of "multispecies ethnography" which is evidenced in his 1868 text entitled *Rambles of a Naturalist on the Shores and Waters of the China Sea: Being Observations in Natural History during a Voyage to China, Formosa, Borneo, Singapore, Etc., Made in Her Majesty's Vessels in 1866 and 1867*.[4]

In coming to explore life writing on nonhuman species, the scholars of East Asian ecocriticism have largely overlooked marine animals. Ecocriticism is the study of the representation of the environment and ecological issues in the works of literature and popular culture. Recent developments in East Asian ecocriticism have begun to focus on contemporary literatures in Japan, China, Korea, and Taiwan: a very few ecocritical studies in the twenty-first century — particularly Simon C. Estok's *East Asian Ecocriticisms* (Palgrave Macmillan, 2013), Thornber's *Ecoambiguity* (U of Michigan P, 2015), and Chia

Ju Chang's and Scott Slovic's *Ecocriticism in Taiwan* (Lexington Books, 2015) — began to explore literary works about Korea, Japan, and Taiwan. However, these books still overlook not only the life/travel/environmental narratives about nineteenth-century Formosa, but also the life writings and the studies of oceanic animals.[5] The study of marine animals, in a word, has long been absent in East Asian ecocriticism; such absence of the exploration and the study of marine animals makes Collingwood one of the pioneers of the study of marine animals in East Asia. This essay, therefore, investigates some uncharted aspects of East Asian ecocriticism: it seeks to draw attention to life accounts about nonhuman species in mid-nineteenth-century Taiwan and places a particular emphasis on marine animals. It argues that *Rambles of a Naturalist* is a pioneering text of multispecies ethnography about Formosan oceanic species and that Collingwood is a pioneer of multispecies ethnography writing. Specific questions that arise in this article include: How did Collingwood introduce his readers to understanding the marine animals in mid-nineteenth-century Formosa? How did Collingwood represent Formosan oceanic animals and their habitats in *Rambles of a Naturalist*? How might Collingwood's life accounts of Formosa's marine animals present lively interspecies relationships and express his proto-ecological sensibilities, thus making Collingwood become a pioneer of the genre of multispecies ethnography?

Multispecies Ethnography: Life Writing, Formosan Marine Animals, and Proto-Ecological Sensibilities

In the nineteenth century, the island of Formosa possessed a great abundance of marine animals in both the south and the north, particularly in Ke-lung harbor and Ta-kau harbor. Before 1860, Formosa was largely unknown territory for European and American travellers. After the opening of Formosa's ports for foreign trade in 1860, myriads of diplomats, imperialist business adventurers, natural history scientists, proselytizing missionaries,

legitimate traders and other Westerners visited Formosa. These visitors made observations and documented the unknown landscapes, natural resources, or birds, flora and fauna in Formosa; these travelers include Robert Swinhoe (1836–1877), a British ornithologist who worked as the first consul in Formosa; Joseph Beal Steere (1842–1940), an American naturalist who traveled in Formosa and the Far East; and John Dodd (1838–1907), an English merchant who helped promote Taiwanese tea to America.[6] One of these Westerners was Collingwood, a natural scientist and a Professor of Botany at the University of Oxford (Otness 32-33). He made minute observations on unique specimens of birds, botanical items, and marine animals that came to his attention; he had much to record in the field of natural history. The principal motives of Collingwood's voyage, in other words, were not those which inspired the merchants and the missionaries. In the "Preface" to *Rambles of a Naturalist on the Shores and Waters of the China Sea: Being Observation in Natural History during a Voyage to China, Formosa, Borneo, and Singapore, Made in Her Majesty's Vessels in 1866 and 1867*，Collingwood remarked that "the voyage here [Formosa]" was "actuated solely by a desire of increasing my own information, and in the hope of, in some measure, advancing science" (iii). Accompanying a British naval expedition on the vessel *Serpent* to Southeast Asia in 1866-67,[7] Collingwood wrote very detailed accounts of Formosa, Labuan, Manila, and Singapore in *Rambles* (Otness 32-33). He also published several scholarly essays in British journals including "On the Geological Features of the Northern Part of Formosa and the Adjacent Islands" in *The Quarterly Journal of the Geological Society of London* and "On Some Sources of Coal in the Eastern Hemisphere, Namely Formosa, Labuan, Siberia, and Japan" in the same journal.[8]

Composed in a form combining natural history and travel journals, Collingwood's *Rambles* and essays are also pioneering multispecies ethnography texts. Natural history is

generally understood to refer to "the narrative practice of humans" in their observation and description of the world of nature (DeLoughrey, Gosson, Handley 5). Often used to refer to the study of all aspects of the natural world, natural history records information related to the life of environmental productions, including birds, flora and fauna:[9] it presents an individual's observations of the natural world (Tallmadge 291-92), and it also heavily draws on scientific knowledge about nature. In this sense, an objective and "scientific bent" can be said to be a characteristic feature of natural history (Murphy 45). Scientific bent is also an important characteristic of multispecies ethnographic works or studies, but multispecies ethnographies do not aim to impartially produce "objective" accounts of the natural world. Instead, multispecies ethnographic writings or approach are grounded in the conviction that exposing readers to nonhuman nature's lives and deaths "may give rise to proximity and ethical entanglement, care and concern" (Dooren and Rose 89). Multispecies ethnography tends to encompass interspecies relationships and their ecological significance, with humans rarely prominent and never independent. In addition to its scientific bent, multispecies ethnography is also a form of belles-lettres: multispecies ethnographies are presented not only "as observations" but also "as stories," accounts, or narratives (de Gennaro 315). Ethnographies are studies of life, offering accounts or stories of ways of life; in the twenty-first century, an emergent cohort of multispecies ethnographers — including Mara de Gennaro, Deborah Bird Rose, Thom Van Dooren, Eben Kirksey and Stefan Helmreich — began to place a fresh emphasis on the subjectivity of nonhuman species whose lives are entangled with humans or with "other kinds of living selves" (Kirksey and Helmreich 552; Rose 110-111), and marine animals are one of those "living selves." Containing delineations of the natural or biotic world, multispecies ethnography centers on habitats, habits, and the life and death of living beings on earth (Rose 111). To awaken readers' "genuine care and

concern" for nonhuman species, multispecies ethnographic narrative is about becoming witness, which include both attention to nonhuman species and expression of that experiences (Dooren and Rose 89). Since writers of ethnographies or natural histories — such as Collingwood — often combine their inquiry into nature with a narrative of their journeys, multispecies ethnographic narratives provide an eyewitness account of the natural world encountered during one's travels. Characteristic of its function of being the literary presentation of scientific facts, multispecies ethnography reveals the complex relationship between life writing, travel accounts and science; it thus becomes a balancing act between scientific knowledge and literary sensibility, demonstrating a connection between science, literature, travel, and the natural world — particularly the life-world of nonhuman creatures. The following passage about Collingwood's ethnographic representation of peronias (a kind of sea slug) in *Rambles* exhibits his command of both scientific and literary language:

> I was therefore somewhat surprised, on a subsequent occasion, to find Peronias on the coast of Borneo, on the under side of stones which were immersed in the water. The Peronia is greenish-brown in colour, without dorsal branchiae, or mantle-tentacles, as in the Nudibranchs, but have two snail-like retractile tentacles on the head, with eyes at their points, and the whole mantle is covered with papillae, having something of the form of fleur-de-lis. (97)

In *Rambles*, Collingwood mentions finding peronias on Borneo after describing "the slug-like Peronia" in Ke-lung harbor.[10] Collingwood's comparison of the sea slug to a "fleur-de-lis" shows how many naturalists of this period, upon finding specimens either new or rare to European science, were inclined to use metaphors to liken the specimen to other species that would be familiar to audiences back home. Collingwood's audience would likely be familiar with the image of the fleur-de-lis whereas this might not be the case with the "peronia" or "sea slug." Collingwood's observations were also before the advent of portable cameras, so his life narrative needed to have a poetic element that could stimulate the visual

imaginations of his readers. Also, by remarking that the "Peronias on the coast of Borneo" live "on the under side of stones which were immersed in the water," Collingwood delineates the living environment of these peronias and shows "the ecological centrality" of East Asian marine animals "in the habitats where they lived" (Phillips 1-2; Rose 111). In the late nineteenth century, Western travelers who visited Formosa — including Collingwood, Swinhoe, Steere, Charles W. Le Gendre (1830–1899, an American diplomat who traveled the interior of Formosa), and James W. Davidson (1872–1933, the first American consul in Taiwan) — provided important early accounts of Formosa's environment and its nonhuman inhabitants. These accounts are environmentally sensitive; they furnish accurate, valuable descriptions of Formosan flora and fauna, and they frequently recount the abundance and beauty of Formosa's natural productions, particularly marine animals. Accordingly, nineteenth-century life accounts about Formosan living beings reveal continuing connections between environmental representations, proto-ecological sensibilities, and early multispecies ethnographic narratives. The following passage from Collingwood's *Rambles* serves as a distinct example:

> In the cervices of the coral blocks, which strewed the shores, shoals of small and beautiful coral-fish abounded some of the richest blue (Pomacentrus), others striped and banded (Glyphitodon and Therapon), others yellow, green, red, and of forms equally various […] The rocks, where washed by spray, were blackened by the swarms of Ligia running nimbly about, exhibiting a bluish metallic tint, which glanced upon their backs in the sunlight. Beautiful purple Echini occupied the hollow places in the sandstone; and great black Holothuria, of the kind used for Trepang, lay scattered about in many places, and these, when touched, threw out a quantity of white tenacious threads, which adhered like glue to the hand. (96)

This excerpt delineates "a great number of species" and "a very great variety of animals" near the "the rocks around Ke-lung harbour" (*Rambles* 96, 97), offering a lively ethnographic account of Formosan marine animals' "life in all of its diversity," to put in Dooren's and Rose's words (80). Providing a rich catalogue of marine creatures —

"considerable" kinds of "beautiful coral-fish" (such as "Pomacentrus," "Glyphitodon and Therapon," and other "yellow, green, red" coral-fish), "swarms of Ligia," "beautiful purple Echini," and "great black Holothuria" (*Rambles* 97), Collingwood makes a rare nascent multispecies ethnographic record of East Asia's oceanic species and praises the abundance, variety, charm, and beauty of Ke-lung's marine animals. As such, he evinces his sense of awe, delight, and admiration for nonhuman nature. This quoted passage, therefore, exemplifies one of the most distinctive quality in Collingwood's multispecies ethnographic narratives: "multispecies love," to put in de Gennaro's words; multispecies ethnographic writing, as de Gennaro postulates, turns "its lens on the feeling," "empathizing presence of the writer," for whom love, "passion and affection are strong emotions that do not cloud the writer's judgment" but rather allow the writer "to see what is valuable" about the nonhuman nature (317). Moreover, this quoted excerpt displays another significant quality in Collingwood's multispecies ethnographic accounts: the notions of interrelatedness and the entangled quality of life on earth (Dooren and Rose 85). In *The Book of Nature*, Margaret Curzon Welch contends that the accounts of the lives of nonhumans should contain "every scrap of available evidence on appearance, habitat, and geographical distribution of a species" (5); her emphasis is on looking at plants, birds, and animals within their habitats and not as isolated creatures.[11] Such an emphasis suggests a multispecies ethnographic vision of the world, for Welch's ideal life accounts allow the focus to be placed upon a natural species and all its interrelations with the rest of the natural world. In the quoted extract, Collingwood narrated his discoveries and observations of "a considerable number of tolerably perfect" marine species around Ke-lung harbour, but at the same time, he delineated the habitats of these species — the "sandy beach," "the cervices of the coral blocks," the beach rocks, and "the hollow places in the sandstone" (*Rambles* 96, 97), thereby

displaying his sensitivity to the interconnectedness of nature and to interrelationships in a natural community and exhibiting his proto-ecological vision. The term "proto-ecological sensibility" was coined by Michael P. Branch in "Indexing American Possibilities" to mean "incipient ecological sensibilities," such as an appreciation of nature, the expression of ecological awareness," the celebration of the beauty of nonhuman nature, and the "sensitivity to [the] interconnectedness" of nature and to interrelationship in a natural community (Branch 288-91, 297). Collingwood's life accounts about Formosan marine animals, in short, display the inseparable relationship among proto-ecological sensibilities, environmental representations, and multispecies ethnographic narratives.

Multispecies Ethnography: Life Writing of Marine Animals in Cuthbert Collingwood

While nineteenth-century Westerners in Formosa were fully cognizant of the mercantile value of natural resources — such as coal, camphor, tea, and petroleum — and articulated the economic prospects of Formosa's resources, Collingwood also devoted much of his energy to representations of East Asia's various marine species and to considerations of the relationships among natural phenomena, directing readers' attention to relationships within natural systems. In his essay "On Some Sources of Coal in the Eastern Hemisphere, Namely Formosa, Labuan, Siberia, and Japan," for instance, Collingwood delineated Keelung's coal-beds and the large oyster species situated all around them:

> The Formosa coal-district is situated near Kelung […] The position of this coal-bed proves that it is of comparatively recent formation. It lies apparently over the sandstone. I may also mention that about the middle of this portion of the island, near the town of Sikkow, I observed a thin seam of indifferent coal, cropping out in the river's bank, over which was a bed of stiff clay, abounding in large oyster-shells, seven or eight inches long, of a species (probably the recent Ostrea Canadensis) which I have seen brought to Canton in vast numbers for the purposes of lime-making. (99)

Narrating his discovery of the "large oyster-shells" and of "a species (probably the recent Ostrea Canadensis)" on a seam of coal "cropping out in the river's bank," Collingwood remarked on how "a thin seam of indifferent coal" created a habitat for a specific species: "the recent Ostrea Canadensis" ("On Some Sources of Coal" 99). In so doing, he connected marine species (oyster) to places (Sikkow and Keelung). In this way, Collingwood's observations invoke an awareness of interconnectedness and hint at a notion of wholeness; this quoted material exhibits Collingwood's multispecies ethnographic perception of natural systems and complex interdependencies. Indeed, Collingwood's life account here anticipates a move toward a more ecological conception — that is, toward a model of nature that takes into account the complex web of relationships existing among marine species and coal in a given region.

Collingwood's multispecies ethnographic sensitivity to interrelationship in a natural community, furthermore, can be found in a passage in *Rambles* about Labuan's "very little fish which hovered in the water close by, and nearly over the anemone" (151):

> I visited from time to time the place where the anemone was fixed, and each time I found the little fish there also. This singular persistence of the fish to the same spot, and to the close vicinity of the great anemone, aroused in me strong suspicions of the existence of some connection between them. (151)

Remarking on "the connection existing between the fish and the anemone" (*Rambles* 151-152), Collingwood presciently suggests the notions of interrelatedness and of species interdependence; this excerpt thus anticipates the focus on this natural interrelatedness of future multispecies ethnographers. Focusing on multiple species and recognizing nonhuman creatures as "narrative subjects" whose stories matter, multispecies ethnographers lead from stories of humans to "stories enacted and expressed by multiple species" and emphasize the webs of interspecies dependence (De Gennaro 315; Kirksey and Helmreich 553).

Multispecies ethnography is a kind of life writing grounded in attentiveness to the lives of nonhumans, and multispecies ethnographic studies, as S. Eben Kirksey and Stefan Helmreich postulate, "impinged on notions of relatedness" and of species interdependence (550). Collingwood's life accounts about marine animals, in this vein, become pioneering multispecies ethnographies.

In addition to his proto-ecological awareness of relationships and interconnectedness within natural systems, Collingwood's close and minute observation of the habits and behaviors of nonhuman nature within their habitats also characterize his environmental representations and multispecies ethnographic sensibilities. In the ensuing extract from *Rambles*, Collingwood invited readers into his life narratives by dramatizing the behaviors of the land crabs near Ta-kau Harbor:

> Upon the shores of the lagoon was an excellent spot for watching the habits of the land crabs, which marched about in a serio-comic manner amid their holes; each one as it cautiously moved along held up in front of its eyes its single large and delicately-tinted claw, with an expression half of defiance, half of defence. Prowling thus about, probably in search of food, they were readily alarmed, and retired to their holes, which generally seemed too small for them, so that it took a little time for them to accommodate themselves to their narrow dimensions. If closely pursued, they were easily captured. I carried one to some distance, and placed it at the mouth of another hole, down which it immediately dived and disappeared, and although I waited a considerable time in the expectation that the tenant of the hole would drive it out and show some displeasure at the intrusion, nothing of the kind occurred. (40-41)

In his life accounts about Formosa's marine animals, Collingwood displays an unusual interest in patterns of crab behaviors, often explaining the habits of land crabs by appealing to human patterns of thought and behavior. He gives the crabs human emotions. Thus, in *Rambles* the land crabs "marched about in a serio-comic manner amid their holes"; each crab "cautiously" moved; before retiring to their holes, the crabs were "readily alarmed"; each crab held up "its single large and delicately-tinted claw" "with an expression half of

defiance, half of defence" (*Rambles* 40). Collingwood tells his readers that when he captured one land crab and placed it "at the mouth of another hole," he waited for "a considerable time in the expectation that the tenant of the hole would drive it out and show some displeasure at the intrusion" (*Rambles* 41). In addition to representing in *Rambles* the actions of crabs in terms of human behavior, he also represents the actions of fish by appealing to human patterns of behavior. For instance, the anemone-inhabiting fish in Labuan "was remarkably lively and amusing, and of a disposition I can only describe as knowing"; the leaping fish in Formosa "contrived to elude pursuit in the most active and provoking manner" and "their leaps are effected by means of their curiously-bent ventral fins, which look something like a pair of hands placed immediately behind the head" (*Rambles* 152, 41-42). Clearly, in Collingwood's multispecies ethnographic narratives there existed a tension between his absorption in the world of land crabs and leaping fish he was observing and his use of language that had the effect of assimilating them to his own. Through this rhetorical strategy of anthropomorphism, Collingwood not only established a strong sense of intimacy with the crabs and the fish he vividly described but also demonstrated his desire to identify with his subjects. Such anthropomorphizing displays Collingwood's sense of closeness with the marine animals he pursued and reveals his empathy and emotional identification with nonhuman creatures in the world of nature.

Characteristic of his passion for nature, a strong sense of intimacy and identification with nonhuman nature, the multispecies ethnographic sensibilities in Collingwood's life narratives can also be found in the third chapter of *Rambles*; Collingwood invites audiences into his vivid life narratives by dramatizing the leaping fish in "the vicinity of Ta-kau" (42):

> These curious salamandrine-looking creatures […] contrived to elude pursuit in the most active […] manner. Each step in advance caused them to jump, jump, in a rapid and agile manner—for when at rest they were scarcely distinguishable

> from the mud on which they were lying, and to which they admirably assimilated in colour — but on the least alarm they would make a series of leaps, which rapidly brought them down to the margin of the water. They are wedge-shaped in form, usually about 3 or 4 in. long, with flat pointed tails and broad heads, upon which is situated a pair of prominent eyes. They have been called by sailors "Jumping Johnnies," and are by no means confined to muddy or sandy shores, for I have found them equally among smooth rocky places, up which they climb with great skill, by a series of leaps, wriggling and curving the tail at each leap in a contrary direction […]. (41-42)

In these lines, Collingwood employs an epithet — "these curious salamandrine-looking creatures" — to liken the leaping fish to other species that would stimulate the visual imaginations of readers (*Rambles* 41). He also portrays the shape, length, nickname, habits, and habitats of the leaping fish in detail, contributing to the variety of his life accounts; he recognizes the leaping fish as meaningful "narrative subjects," to put in de Genaro's words (315), and he is highly attentive to the details of the leaping fish's "ways of life," to put in the phrase of Dooren and Rose (80).[12] Extolling the "great agility" and the "rapid, agile manner" of the leaping fish, informing his readers of the leaping fish's "great skill" of climbing on rocky places, and emphasizing that the leaping fish "were scarcely distinguishable from the mud" "to which they admirably assimilated in colour," Collingwood's life narratives accessibly communicate scientific knowledge about Formosan leaping fish and eloquently celebrate the charm and power of the marine species in late nineteenth-century Formosa (*Rambles* 41-42). This same passage, furthermore, represents nineteenth-century East Asia's leaping fish and the environs where these nonhuman inhabitants lived — the "muddy or sandy shores" and "smooth rocky places" in the vicinity Ta-kau Harbour. In delineating the leaping fish and its broader environment, Collingwood connects marine animals to places, their "natural habitats" (*Rambles* 100), and thereby exhibits his prescient and multispecies ethnographic perception of natural systems or ecosystems.

Combining literary narrative with the faithful and scientific description of nature, Collingwood's life narratives reflect his appreciation of nonhuman creatures and his admiration for Formosan oceanic species. The ensuing passages from *Rambles* serve as another example:

> After the gale […] the low cay, called Bush Island, was covered with a fleet of little Velella and Physalia. This island produced a number of beautiful Anemones, botrylliform Tunicata, &c […] These were the sea-hares […] These animals are remarkable for their power, like cuttle, of pouring out an abundant secretion of a purplish colour from the edge of the mantle, with which, alarmed, they stain the surrounding water […] In Ke-lung harbour […] my pains were rewarded by two or three species of Nudi-branchiata. Of these one was a small blue Doris; the other two were new species, and interesting for their extreme beauty. One of these was a Doris of a cream-colour, edged with orange, and covered over the back with rich vermilion marbling. […] Its movements were wonderfully graceful […] (97-98)

Here Collingwood's life accounts comprise a rich natural-historical and multispecies-ethnographic catalogue of marine animals in "Ke-lung harbour": "little Velella and Physalia" and "beautiful Anemones, botrylliform Tunicata," "Alysia," "Tectibranchs," and "Nudi-branchiata," including "a small blue Doris" and "a Doris of a cream-colour" (97-98). By so doing, Collingwood introduces generations of readers to the physical character of nineteenth-century East Asia's marine species, and accessibly and eloquently communicates scientific knowledge about nature. Praising Formosan Doris' "wonderfully graceful" movement, Nudi-branchiata's "extreme beauty," and "sea-hares' "remarkable" power of "pouring out an abundant secretion of a purplish colour" to "stain the surrounding water" (*Rambles* 97-98), Collingwood combines his ingrained sense of delight with detailed scientific information about the distinctive qualities of the marine species being described, evinces his enthusiasm for the diversity and beauty of nature and expresses his sense of wonder and feeling of appreciation for Ke-lung's marine animals; in this way, Collingwood reveals his "multispecies love," to put in de Gennaro's words (315).

For Collingwood, Formosa was the land of plenty, particularly where its abundant marine animals were concerned. In his life narratives, however, Collingwood combines representations of the plenitude and fecundity of Formosa's marine species with delineations of Formosan fishermen's catching and destruction of oceanic creatures. In *Rambles*, for instance, he narrates Ke-lung fishermen's massive shell-fishing:

> At one time the towing-net would bring up transparent animals which bore a close resemblance to the Cymbulia ovularis, of Rang, whose broad expansive wings […] were placed in a tuberculated and purse-shaped crystal calyx, from which it was easily separable […] But the most abundant and striking was the pretty and delicate little Creseis, with an elegant glassy shell, like an inverted church spire […] So abundantly did these little creatures swarm upon some days, that they came up in solid masses, and the towing-net was filled with them in every mesh; so that it was a long task to clear it of the fragile shells. (98-99)

Stating that Formosa's "transparent animals" were "very interesting" and celebrating the abundance and unique features of these marine species (such as Creseis' "elegant glassy shell"), Collingwood records an accurate transcript of East Asia's "fragile" oceanic species; nevertheless, remarking that "solid masses" of Creseis were captured by "the towing-net" and that Ke-lung fishermen's "towing-net was filled with them in every mesh" (98-99), Collingwood delineates humankind's massive mistreatment of nature. This passage thus exhibits an incipient awareness of the immense destruction of marine species occurring in mid-nineteenth-century Formosa. Although Collingwood's sense of environmental awareness is not, strictly speaking, ecocentric, his sensitivity to Formosa's oceanic animals" and his anxiety about their destruction is an essential precursor to the idea of environmental conservation. "Multispecies ethnographers," as Kirksey and Helmreich argue in their essay "The Emergence of Multispecies Ethnography," situate their works "within ecological concerns" (548). Collingwood's awareness of marine species' vulnerability and devastation,

in this vein, is the combined product of his proto-ecological concern and his multispecies ethnographic sensibility.

In the twenty-first century, multispecies ethnographers such as Kirksey and Helmreich are increasingly aware of the vulnerability of all life and the enormous loss of nonhuman living beings on Earth, noting that humans are "the primary agents driving mass extinctions and the large-scale destruction of ecological communities" (549). However, early in the nineteenth century, such an awareness of the peril for so much of nonhuman life in the natural world had already appeared in the life writings of Collingwood. In *Rambles*, Collingwood's poignant dismay at the destruction and death of Formosa's nonhuman "harbor inhabitants" is noticeable:

> Beautiful Acalephs, or sea-jellies were among the harbour's inhabitants; ciliograde, like elegant pink glass flowers, in constant motion, with prismatic bands of cilia playing along the raised ridges of their body from end to end. But even these were hardly so striking as the wonderful influx of Hydrozoa […] This happened upon the 18th of June. Myriads and myriads of Creseis swarmed in the harbour […] as the afternoon advanced, the sea became alive with marine animals […] They were wonderfully sculptured and carved masses of solid jelly, either perfectly transparent, or tinged with pink. They would bear being taken up carefully in a hand-net, and placed in a basin of sea water, but when there, they became absolutely invisible from their delicacy and transparency. When touched they would break asunder into transparency, gelatinous, star-like bodies; so I was in despair at getting even a sketch of their complicated forms, for […] they immediately fell to pieces and dissolved. (99-100)

This passage is a mix of natural historical style with the anecdotal and storytelling. Storytelling plays a significant role in multispecies ethnographies: as Mara de Gennaro postulates in "Multispecies Stories, Subaltern Futures," multispecies ethnographies on the whole are "presented as stories rather than as observations and interpretations" (315). With its aspiration to tell stories that stir readers to notice and take seriously the environmental destruction and to awaken readers' "genuine care and concern," multispecies ethnography is "a narrative emerging from extinctions" and it endeavours to impress on readers the urgency

of protecting nonhuman nature (de Gennaro 316). The above quoted excerpt from *Rambles* exemplifies de Gennaro's notions about multispecies ethnographic storytelling. Collingwood's life narratives on sea-jellies start with an emotionally charged description of "the harbour's inhabitants" — "Beautiful Acalephs," the "elegant" ciliogrades as well as the "striking" and "the wonderful influx of Hydrozoa" (100). Then Collingwood tells an anecdote — the story of how he found the "beautiful organisms which most closely resembled the Stephanomia triangularis of Quoy and Gaimard" but later on witnessed their death (*Rambles* 99). To be certain, Collingwood's descriptions are not simply vivid, detailed and visually rich but they are also dramatic. Collingwood makes explicit his vision of the link between his life accounts and his desire to document these fragile marine species. This quoted extract from *Rambles* exhibits Collingwood's genuine love of nature tempered by a scrupulous fear for its destruction and displays his fervent concern about the "fragility" and devastation of Ke-lung harbor's marine animals (100). Providing remarkable multispecies ethnographic accounts of the death and evanescent life of these oceanic species, this quoted material reveals Collingwood's ecological worries and environmental anxiety: his fear for the devastation of nature.

Collingwood's anecdote and storytelling about Ke-lung harbor's "perfectly transparent" and pink sea-jellies ends with the following lines (*Rambles* 99):

> I was much disappointed at my unsuccessful attempts to keep some record of them; but their invisibility, their fragility, and the approach of darkness, rendered all my attempts futile, and although I might have succeeded better if I had had another opportunity, I never saw anything like them on any subsequent occasion […] Whence could they have come in such profusion? And if the surface of the sea is their natural habitat, why are they not more frequently seen? (*Rambles* 100)

Recognizing Formosa's "masses of sea-jellies" as "narrative subjects whose stories matter" (to put in de Genaro's words),[13] this quoted extract reveals Collingwood's deep concern

regarding Formosan nonhuman marine inhabitants' critical endangerment by Ke-lung fishermen's massive shell-fishing (*Rambles* 99). Addressing the ecological implications of the sea-jellies' extinction, these lines exhibit Collingwood's insightful awareness of the immense environmental changes and ecological degradation that were already being worked on the shores and harbors in nineteenth-century Formosa.[14] Collingwood's accounts of human-induced environmental degradation is significant culturally and historically for tracking ecological changes in early Formosa, one of the islands in East Asia. More than one hundred and fifty years ago, Collingwood was concerned about mankind's mistreatment of nature, about the relationship between humans and the environment, and about environmental damage: he was aware of the loss of richness of Formosan marine animals. Collingwood's astute observations of the drastic changes being worked on "the surface of the sea" in Formosan harbors are among the earliest expressions of ecological worries, anxiety, and concern over environmental transformations (*Rambles* 100).

Conclusion

In "Afterword: Ecocritical and Literary Futures," the concluding chapter of *East Asian Ecocriticism*, Karen Laura Thornber argues that ecocriticism has to uncover "environmental subtexts from a range of creative works" and to open up the existing textual archives that had previously been neglected in literary and cultural studies (239). Certainly, Collingwood' life writings on mid-nineteenth-century Formosan marine animals are an integral part of those overlooked "environmental subtexts" and textual archives ("Afterword" 239). In East Asian ecocriticism, the writings about marine animals are largely unknown and unexplored; the study of marine animals, on the whole, has long been absent in East Asian ecocritical and literary studies. Also, nineteenth-century Western travelers' life accounts about Formosa's

natural world — particularly Collingwood's works — are overlooked. For a very long time, Collingwood did not receive the critical attention he deserves. Today, the study of oceanic species and of Collingwood's texts are still largely unheard of and mostly unknown in the field of East Asian ecocriticism. Focusing on Collingwood's *Rambles of a Naturalist* and his "On Some Sources of Coal in the Eastern Hemisphere," this essay has examined some unexplored spaces in East Asian ecocriticism and nineteenth-century life writings, rediscovering otherwise obscure texts that express incipient ecological voices and nascent multispecies ethnographic sensibilities, including an appreciation of nonhuman nature and a sensitivity to interconnectedness and interrelationships among species in natural environments. As ardent naturalist who story lifeworld of marine animals on the regional threshold of East Asia, Collingwood offered compelling accounts of Formosa's marine animals and their habitats, habits, life and death. Collingwood's vivid and careful delineations of oceanic creatures, his admiration for the marine animals in Formosa, his sympathy and identification with Formosan oceanic species, and his perception of the interrelatedness among species there — all make up his multispecies ethnographic sensibilities, help initiate a tradition of environmental awareness in life writings about nineteenth-century Formosa, and make Collingwood become a pioneer of the genre of multispecies ethnography.

Notes

[1] From the late twentieth century to the twenty-first century, life writing evolved into both a form of creative text (including blogs, collections of emails or letters, autobiographies, biographies, memoirs, diaries) and a diverse, "inclusive, and seemingly ever-expanding field of academic study" according to Donna Lee Brien and Quinn Eades (1). In their book, *Offshoot: Contemporary Life Writing Methodologies and Practice*, Brien and Eades postulate that life writing is both "a description of genre and a form of practice" because it attracts scholars who work in "the disciplines of creative writing" and in an immense range of other fields such as gender studies, ethnic studies, and postcolonial studies (1). *Offshoots* and most life-writing studies — such as Sara Haslam's and Derek Neale's *Life Writing*, Sidonie Smith's

and Julia Watson's *Reading Autobiography,* Barbara Caine's *Biography and History,* Paul John Eakin's *The Ethics of Life Writing*, Koray Melikoğlu's *Life Writing*, Kylie Cardell's and Kate Douglas's *Telling Tales*, Richard Bradford's *Life Writing*, Evelyn Ender's *Architexts of Memory*, and Gerrit Haas's *Fictocritical Strategies* — are concerned on the whole with contemporary issues within life-writing scholarship such as technology and digitality, self-reflexivity and self-making, body and other materialities, storytelling and the role of fictionalization in life accounts. In this way, the life writings focusing on nonhuman creatures (such as birds, flora and fauna, and so forth) receive little attention and consequently plays a marginalized role in life-writing studies. Due to the emergence of ecocriticism over the past couple of decades, however, the life writing about nonhuman nature became a thriving field of research.

[2] In the twenty-first century, multispecies ethnography has become diverse and "responsive to the changing world" (Rose 110). Offering accounts of ways of life, ethnographies now include life writings on nonhuman nature: ethnographies nowadays are explorations and studies of the life about not only humans but also about nonhumans (such as insects, animals, plants, and many other species) who are involved in an interdependent world "made up nonhuman persons as well as human persons" (Rose 111). Also, a continuing concern of ethnographic writing includes the poetics of representation; and as Deborah Bird Rose postulates in her essay "Ethnography," "the genres of representation are expanding, and so is the subject matter" (111). An ethnography now includes life narratives about nonhuman species.

[3] Multispecies ethnography is not confined to land animals; it also includes marine animals and oceanic species; in the twenty-first century, ethnographies have become diverse and more inclusive and they are responsive to "the vulnerability of the entangled loops of earthly life" (Rose 112): arguing that individual living beings, organisms and their species — such as plants and animals — could be regarded as meaningful narrative subjects in their own right, Dooren and Rose call for developing "lively" ethnographies to story the life of nonhuman nature and to petition for renewed attention to "situated connectivities" that bind the life of human and nonhuman nature in multispecies communities" (Kirksey and Helmreich 549-50; Dooren and Rose 85; Kirksey, Schuetze, and Helmreich 1-2).

[4] In this essay, the words *Rambles of a Naturalist* and the word *Rambles* will hereafter be used to stand for Collingwood's *Rambles of a Naturalist on the Shores and Waters of the China Sea: Being Observation in Natural History during a Voyage to China, Formosa, Borneo, and Singapore, Made in Her Majesty's Vessels in 1866 and 1867*.

[5] Since the second half of the nineteenth century, the works of Western travelers who visited Taiwan have been largely unheard of and mostly unrecognized; nineteenth-century East Asian ecocritical and literary studies — especially environmental/ travel narratives about nineteenth-century Formosa — are largely unknown and unexplored. In 1999, Harold M. Otness's *One Thousand Westerners in Taiwan* began to recognize the significance of European, American and Canadian travelers who visited Formosa from the sixteenth century to the early twentieth century. Yet this book was presented as a biographical and

bibliographical dictionary and, therefore, was unable to examine nineteenth-century Westerners' works in depth and detail. In the twenty-first century, in addition to Estok's *East Asian Ecocriticisms*, Thornber's *Ecoambiguity*, Chang's and Slovic's *Ecocriticism in Taiwan*, Shiuhhuah Serena Chou's, Soyoung Kim's, and Rob Sean Wilson's *Geo-spatiality in Asian and Oceanic Literature and Culture* (Palgrave Macmillan, 2022) also explores contemporary literatures in Japan, Korea, and Taiwan, but this book that has been recently published still overlooks nineteenth-century Westerners' writings about Taiwan; the life writings and study of marine animals are still absent in this new book.

[6] Some of these travelers — particularly Collingwood and Steere — also traveled to Formosa's neighboring islands, such as Hong Kong, Borneo, Labuan, Singapore, and the Philippines. See Harold M. Otness, *One Thousand Westerners in Taiwan, to 1945; A Biographical and Bibliographical Dictionary* (Academia Sinica, 1999), 32-33, 42-43, 149-50.

[7] In 1866, Collingwood accompanied a naval officer, Commander Bullock, on his journey to Formosa in "the dispatch boat Serpent"; see George Williams Carrington, *Foreigners in Formosa 1841–1874* (U of Michigan P, 1973), 145.

[8] Cuthbert Collingwood, "On the Geological Features of the Northern Part of Formosa and of the Adjacent Islands," *The Quarterly Journal of the Geological Society of London* 24 (1868): 95-98, https://archive.org/details/quarterlyjournal24186geol; and Cuthberth Collingwood, "On Some Sources of Coal in the Eastern Hemisphere, Namely Formosa, Labuan, Siberia, and Japan," *The Quarterly Journal of the Geological Society of London* 24 (1868): 98-102, http://academic.reed.edu/Formosa/texts/Collingwood1868book.html.

[9] Natural history is a term for the study of the life of animals, insects, plants, birds, minerals, and all other living beings in the world of nature; and a naturalist is any person versed in natural history. See Lynn Barber, *The Heyday of Natural History: 1820-1870* (Doubleday & Company, 1980), 27-28; Gail Fishman, *Journeys through Paradise: Pioneering Naturalists in the Southeast* (UP of Florida, 2000), xiii; Richard W. Judd, *The Untilled Garden: Natural History and the Spirit of Conservation in America, 1740-1840* (Cambridge UP, 2009), 11-12; Pamela Regis, *Describing Early America: Bartram, Jefferson, Crèvecoeur, and the Rhetoric of Natural History* (U of Pennsylvania P, 1992), 5-6.

[10] The spelling of this important harbor was rendered as both "Ke-lung" and "Kelung" in Collingwood's book and essays.

[11] In *The Book of Nature: Natural History in the United States, 1825-1875*, Margaret Curzon Welch explores the accounts about the lives of nonhumans; she focuses her emphasis on looking at animals, plants, and birds within their habitats and not as isolated species. Such an emphasis echoes the multispecies ethnographic notions of many twenty-first-century multispecies ethnographic scholars — particularly Mara de Genaro, Deborah Bird Rose, Thom Van Dooren, Eben Kirksey and Stefan Helmreich — who place a fresh emphasis on the subjectivity of nonhuman creatures whose lives are unavoidably connected and

interdependent with "other kinds of living selves" and with the rest of the natural world (Kirksey and Helmreich 552; Rose 110-111).

[12] Multispecies ethnography focuses on habitats, habits, and the life and death of living beings on earth; see Rose, "Ethnography," 111-12. Collingwood's life accounts about nineteenth-century Formosa's marine animals, in this vein, are pioneering multispecies ethnographies.

[13] The phrase — "narrative subjects whose stories matter" — appear in Mara De Genaro's "Multispecies Stories, Subaltern Futures," an article in *Futures of Comparative Literatures,* ed. Ursula K. Heise (Routledge, 2017), 315.

[14] The notions of ecological degradations and environmental damages appear in Karen Laura Thornber's *Ecoambiguity: East Asian Literatures and Environmental Crises* (U of Michigan P, 2015), 3, 91-93; these notions also appear in Stefania Barca's essay titled "History," an article in *Keywords: For Environmental Studies*, eds. Joni Adamson, A. Gleason, and David N. Pellow (New York UP, 2016), 133.

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