



Ethnobotany of Bohag Bihu: Flora in Assamese New Year Rituals

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Abstract

The present investigation focuses on the plants used in *Bohag Bihu*, the state festival of Assam. *Bohag Bihu*, a festival celebrated to mark the beauty of nature during the spring season and the beginning of the Assamese calendar year. A wide variety of plants with medicinal properties are used during various rituals during this festival. Cultural believes and traditional knowledge of those plants used in this festival has been passed on through generations from our forefathers. The scientific names, vernacular names, and families of the plants used in the traditional festival of Assam have been documented during this endeavour. This study not only been planned to help botanists but also to meet the requirement to others who are not specialized in taxonomy or familiar with the classification of plants. During this survey, a total number of 106 plant species belonging to 49 families have been recorded along with their significance, taking this most alluring Assamese festival into account.

Keywords: *Assam, Bihu, Medicinal, Plants, Traditional use.*

Introduction

Bihu is the key cultural festival unique to the state of Assam. Three *Bihu* festivals celebrated in Assam, as *Bohag Bihu*, *Kati Bihu* and *Magh Bihu*, mainly focus on agriculture, changing seasons and the rural culture of the Assamese community. Among the three *Bihus*, *Bohag Bihu* claims much enthusiasm and fanfare throughout the state. *Bohag Bihu*, (also known as *Rongali Bihu*) is celebrated in April, marking the beginning of the spring season and the Assamese New Year. It starts from the last day of the Assamese calendar year and is enthusiastically observed for one week. The first seven days of *Bohag Bihu*, which are popularly known as *Saat Bihu*, i.e. *Goru Bihu*, *Manuh Bihu*, *Gosain Bihu*, *Tator Bihu*, *Nangol Bihu*, *Kutum Bihu* and *Sera Bihu*. Lots of plants with medicinal values are used during different rituals of these seven days [1],[2],[3]. In the improvidence of modernisation, the original culture of the festival has simmered in a vast. Our duty is to preserve and duly continue the legacy of this traditional knowledge, keeping the unique charm of its age-old rituals intact for the overall benefit of present and future generations.

The main objective of this investigation is to identify the plants that are used in this traditional festival and also record their cultural and medicinal uses, and the beliefs that have been passed from generation to generation from ancient times. As the local people are less aware of scientific and modern methods of conservation and protection of traditional knowledge, and are often difficult to explain to them, the message of conservation would be more meaningful to them through myth, faith and traditions rather than through a scientific approach. To encompass this initiative, steps have to be taken in the right direction and to educate the minds of young people. Documentation is the first proper step for the conservation of plants, as well as to protect the traditional knowledge from third parties. Written records can provide insight into the culture of a particular group or community and have practical benefits to conserve our traditional knowledge that may otherwise be lost. Ignoring traditional customs can affect our sustainable environment, as traditional practices protect natural resources and promote healthy ecosystems. If these practices are not continued in proper ways, they will surely lead to the disintegration of our generation-old precious knowledge and also compromise the sustainability of the environment.

Materials and Methodology

About the place: Assam, a major state in the North-Eastern Region of India, is neighboured by seven Indian states and two foreign countries. It is located at 22°19' to 28°16' North Latitude and 89°42' to 96°30' East Longitude and harbors different ethnic tribes with a variety of festivals, among which, *Bihu* is considered the state festival as it is celebrated by many indigenous tribes. The state also shares two biodiversity hotspots, namely the Indo-Burma and Eastern Himalayan biodiversity hotspots. The climate is tropical monsoon with high humidity and heavy rainfall, making the place favourable for high plant diversity.

An extensive field study was conducted among the indigenous people of different villages of Assam during the period of January 2023 to April, 2025. The information was first-hand knowledge that was gathered through surveys, unstructured questionnaires, personal interviews, consultations and group discussions about the different plants used in *Bohag Bihu* in different areas. Collected specimens were processed following conventional herbarium techniques [4] and identified by consulting relevant literature and the Herbarium of Gauhati University and the ASSAM Herbarium at Shillong. The voucher specimens on which the study is based have been deposited in the Herbarium of the Botany Department, ADP College, Nagaon, Assam. Each species is provided with an up-to-date nomenclature, vernacular name (Assamese) and its uses during *Bohag Bihu*.

Results and Discussion

During this survey, a total of 106 plant species has been recorded. Of which, 104 species under 88 genera and 47 families are contributed by Angiosperms. Among the Angiosperms, 88 species comprising 73 genera belonging to 38 families are Dicotyledonous and the remaining 16 species under 15 genera and 9 families are of Monocotyledon. Moreover 2 species under 2 genera and 2 families belonging to Pteridophytes (fern) have been also documented. These plants are used by the people during the *Bohag Bihu* festival in various ways. The traditional system plays an important role in curing various diseases. The comprehensive data has been presented in a tabular form, including scientific names, vernacular names and their uses (Table 1).

Table1: Enumeration of plant species used in *Bohag Bihu*

Sl.No.	Scientific name	Family	Vernacular name	Use in <i>Bohag bihu</i>
01	<i>Alternanthera philoxeroides</i> (Mart.) Griseb.	Amaranthaceae	Panikhutura	Tender shoots are used in the preparation of <i>bihu</i> specific cuisine (heritage dish of 101 greens)
02	<i>Alternanthera sessilis</i> (L.) R. Br. Ex. DC.	Amaranthaceae	Mati Kaduri	Leaves are used in the preparation of heritage green dish
03	<i>Amaranthus caudatus</i> L.	Amaranthaceae	Morisa xaak	Leaves are used in the Preparation of <i>bihu</i> specific green cuisine
04	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Hatikhutura	Leaves used in the preparation of <i>bihu</i> specific recipe
05	<i>Amaranthus viridis</i> L.	Amaranthaceae	Khutura xaak	Tender shoots are used in the preparation of <i>bihu</i> specific recipe
06	<i>Deeringia amarathoides</i> (Lam.) Merr.	Amaranthaceae	Matuktuka	Leaves are used in the preparation of the green cuisine
07	<i>Gomphrena celosioides</i> Mart.	Amaranthaceae	Leheti	Two/three of the plants are used for the <i>Jag</i> (fumigation) to give smoke in the cowshed and gates of homes to repel the mosquito and gnat in the evening on the Day of <i>Goru Bihu</i> .
08	<i>Spinacia oleracea</i> L.	Amaranthaceae	Paleng xaak	Leaves are used in the Preparation of <i>bihu</i> specific recipe

09	<i>Andrographis paniculata</i> (Burm.f.) Wall. ex Nees	Acanthaceae	Kalmegh	Tender shoots are used in the preparation of heritage dish of 101 greens
10	<i>Sagittaria sagittifolia</i> L.	Alismataceae	Syamakachu	Leaves are used in the preparation of heritage dish of 101 greens
11	<i>Centella asiatica</i> (L.) Urban.	Apiaceae	Bor-manimuni	Leaves are used in the preparation of heritage dish of 101 greens
12	<i>Coriandrum sativum</i> L.	Apiaceae	Dhania	Leaves are used in the preparation of heritage dish of 101 greens
13	<i>Eryngium foetidum</i> L.	Apiaceae	Maandhania	Leaves are used in the preparation of heritage dish of 101 greens
14	<i>Hydrocotyl javanica</i> Thunb.	Apiaceae	Manimuni	The plant used in the preparation of heritage dish of 101 greens
15	<i>Hydrocotyl sibthorpioides</i> Lamk.	Apiaceae	Horumanimuni	The plant used in the preparation of heritage dish of 101 greens
16	<i>Tabernaemontana divaricata</i> (L.) R. Br. ex Roem. & Schult.	Apocynaceae	Togorphool	The blooming of this flower signifies the arrival of <i>Bohag Bihu</i> and Spring and also used For decoration of hair-bun of <i>biyu</i> dancer.
17	<i>Alocasia indica</i> (Lour.) Spach.	Araceae	Mankochu	Used in heritage dish of 101 greens
18	<i>Amorphophallus campanulatus</i> (Roxb.) Blume ex Decne.	Araceae	Ulkochu	Underground stems are used as vegetable
19	<i>Colocasia antiquorum</i> Schott.	Araceae	Dohikochu	Used as vegetable
20	<i>Colocasia esculenta</i> (L.) Schott	Araceae	Kochu	Tender shoots are used in the Preparation of <i>biyu</i> specific recipe
21	<i>Lasia spinosa</i> (L.) Thw.	Araceae	Sengmora	Leaves are used in the preparation of <i>biyu</i> specific recipe
22	<i>Areca catechu</i> L.	Arecaceae	Tamul	Areca nuts with betel leaves are used to welcome guest and for worship.
23	<i>Calamus rotang</i> L.	Arecaceae	Bet-Gaz	Tender shoots are peeled to remove the outer skin, revealing the inner white tissue, which is Then cooked and eaten
24	<i>Chrysanthemum coronarium</i> L.	Asteraceae	Babori	Leaves are used in the preparation of <i>biyu</i> specific recipe
25	<i>Eclipta alba</i> (L.) Hassk.	Asteraceae	Bhringraj	Tender shoots are used in the preparation of <i>biyu</i> specific recipe
26	<i>Eclipta prostrata</i> L.	Asteraceae	Keharaj	Leaves are used in the preparation of <i>biyu</i> specific recipe

27	<i>Glebionis coronaria</i> (L.) Cass.	Asteraceae	Babori xaak	Tender shoots are used in the preparation of <i>bihu</i> specific recipe
28	<i>Xanthium strumarium</i> L.	Asteraceae	Agora	Two/three of the plants are used for the <i>Jag</i> (fumigation) to give smoke in the cowshed and gates of homes to repel the mosquito and gnat in the evening on the day of <i>Goru bihu</i> .
29	<i>Diplazium esculentum</i> (Retz.) Sw.	Athyriaceae (fern)	Dhekia	Leaves are used in the preparation of <i>bihu</i> specific recipe
30	<i>Basella rubra</i> L.	Basellaceae	Puroi xaak	Used in the preparation of <i>bihu</i> specific recipe
31	<i>Brassica juncea</i> (L.) Czern.	Brassicaceae	Lai xaak	Leaves are used in the preparation of <i>bihu</i> specific recipe
32	<i>Brassica nigra</i> (L.) Koch.	Brassicaceae	Soriyah	(i) Leaves are used in the preparation of <i>bihu</i> specific recipe. (ii) The oil from seeds is used for massage with exfoliating skin paste for cow as well as human being.
33	<i>Cannabis sativa</i> L.	Cannabaceae	Bhang	Tender shoots are used in the preparation of <i>bihu</i> specific recipe.
34	<i>Drymaria diandra</i> Bl.	Caryophyllaceae	Laijabori	Leaves are used in the preparation of <i>bihu</i> specific recipe
35	<i>Stellaria media</i> (L.) Vill.	Caryophyllaceae	Morolia xaak	(i) Tender shoots are used in the preparation of <i>bihu</i> specific recipe (ii) Two/three of the plants are used for <i>Jag</i> (fumigation) to give smoke in the cowshed and gates of homes to repel the mosquito and gnat in the evening on the day of <i>Goru Bihu</i> .
36	<i>Chenopodium album</i> L.	Chenopodiaceae	Zilmil xaak	Leaves are used in the preparation of heritage dish of 101 greens
37	<i>Mesua ferrea</i> L.	Clusiaceae	Nahor phool	(i) The blooming of Nahor phool signifies the arrival of <i>Bohag bihu</i> as well as spring. (ii) Leaves are used for write a sacred text and place at the top of a house to protect from storms.
38	<i>Commelina benghalensis</i> L.	Commelinaceae	Konaximolu	Leaves are used in the preparation of heritage dish of 101 greens
39	<i>Ipomoea aquatica</i> Forsskal	Convolvulaceae	Kolmou	Tender shoots are used in the preparation of heritage dish of 101 greens
40	<i>Ipomoea batatas</i> (L.) Lam.	Convolvulaceae	Mithaalu	Tuberous roots are used in the preparation of heritage dish of 101 greens

41	<i>Kalanchoe pinnata</i> (Lam.) Pers.	Crassulaceae	Duportenga	Leaves are used in the preparation of <i>bihu</i> specific recipe
42	<i>Benincasa hispida</i> (Thunb.) Cogn.	Cucurbitaceae	Kumura	Slices of fruits are inserted in the <i>Saat Bari</i> and beaten the cow's body after bath wishing for good health of them on the day of <i>Goru bihu</i> .
43	<i>Cucurbita maxima</i> Duch. ex Lamk	Cucurbitaceae	Rongalau	Tender shoots are used in green cuisine
44	<i>Lagenaria siceraria</i> (Mol.) Standl.	Cucurbitaceae	Lau	Slices of fruits are inserted in the <i>Saat Bari</i> and beaten the cow's body after bath by singing a traditional song.
45	<i>Momordia charantia</i> L.	Cucurbitaceae	Titakerala	Slices of fruits are inserted in the <i>Saat Bari</i> and beaten the cow's body after bath.
46	<i>Dillenia indica</i> L.	Dilleniaceae	Outenga	Leaves are used in <i>Jag</i> (fumigation) when the cows return to their shed in the Evening of <i>Goru Bihu</i> .
47	<i>Croton caudatus</i> Geisel.	Euphorbiaceae	Mahudi	Leaves are used in the preparation of <i>bihu</i> specific recipe
48	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Gakhiroti/ Dhudhbon	Leaves used in the preparation of <i>bihu</i> specific recipe
49	<i>Phyllanthus niruri</i> L.	Euphorbiaceae	Bhumiamlakhi	Leaves used in the preparation of <i>bihu</i> specific recipe
50	<i>Flemingia strobilifera</i> (L.) W.T. Aiton	Fabaceae	Makhiotipaati	On the day of <i>Goru Bihu</i> patting the cow with <i>Makhioti</i> leaves is a tradition. People believe that doing this protects the cow against various insects and disease.
51	<i>Trigonella foenum-gracium</i> L.	Fabaceae	Methixaak	Tender shoots are used in green cuisine
52	<i>Vigna mungo</i> (L.) Hepper	Fabaceae	Matimah	Paste of seeds is used to massage during bath of cow at the day of <i>Goru Bihu</i> . The paste is also used as exfoliation by the People during bath on the same day.
53	<i>Cassia tora</i> (L.) Roxb.	Fabaceae	Medelua	Leaves used in the preparation of <i>bihu</i> specific recipe
54	<i>Garcinia pedunculata</i> Roxb.(GP)	Guttiferae	Thekeratenga	Slices of fruits are inserted in the <i>Saat Bari</i> and beaten the cow after bath because of its sour taste may prevent cow's skin from fly, tick attack, louses, etc.
55	<i>Leucas plukenetii</i> (Roth.) Spreng.	Lamiaceae	Doroon	Tender shoots are used in the preparation of <i>bihu</i> specific recipe
56	<i>Mentha spicata</i> L.	Lamiaceae	Podina	Leaves are used in the preparation of green cuisine
57	<i>Ocimum basilicum</i> L.	Lamiaceae	Bontulsi	Leaves are used in the preparation of <i>bihu</i> specific recipe

58	<i>Pogostemon benghalense</i> (Burm.f.)Kuntz.	Lamiaceae	Xukloti	Leaves are used in the preparation of <i>bihu</i> specific recipe
59	<i>Clerodendrum colebrookianum</i> Walp.	Lamiaceae	Nephaphu	Leaves are used in the preparation of <i>bihu</i> specific recipe.
60	<i>Rotheca serrata</i> (L.) Steane & Mabb.	Lamiaceae	Nangalbhangha	Leaves are used in the preparation of <i>bihu</i> specific recipe.
61	<i>Vitex negundo</i> L.	Lamiaceae	Poshotiya	Leaves are used in the preparation of <i>bihu</i> specific recipe.
62	<i>Cinnamomum tamala</i> Fr.	Lauraceae	Tezpat	Leaves are used in the preparation of <i>bihu</i> specific recipe
63	<i>Litsea salicifolia</i> (Nees) Hook. fil.	Lauraceae	Dighloti	On the day of <i>Goru Bihu</i> patting the cow with leaves of the plant is a tradition. People believe that doing this protects the cow Against various insects and diseases.
64	<i>Lawsonia inermis</i> L.	Lythraceae	Jetuka	Paste of leaves is applied on the fingernails, hands, feet etc. during <i>Manuh Bihu</i> for style as well as preventive measure for different skin diseases.
65	<i>Magnolia pterocarpa</i> Roxb.	Magnoliaceae	Borhomthuri	New buds of the plants are chewed with betel-nut to give a darker shade to lips and tongue. It serves as a natural lipstick.
66	<i>Corchorus olitorius</i> L.	Malvaceae	Morapat	(i) The tender shoots are used in the green cuisine. (ii) The fibres of the plant are used to make rope called <i>Pogha</i> , which is tied around the neck of the cow.
67	<i>Urena lobata</i> L.	Malvaceae	Xunborolua	Leaves are used in the preparation of <i>bihu</i> specific recipe.
68	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Neem	(i) Leaves are eaten in the morning of <i>Manuh Bihu</i> on an empty stomach; (ii) Paste of leaves is also used by the people for bathing with some other ingredients as skin care remedy.
69	<i>Artocarpus heterophyllus</i> Lamk.	Moraceae	Kothal	(i) Pieces of tender fruit eat in place of Areca nut with beetle leaves on the <i>Manuh Bihu</i> as medicine, (ii) Tender fruits pieces are also used for curry preparation and eat during the seven days of the festival.
70	<i>Moringa oleifera</i> Lamk.	Moringaceae	Sojina	Fruit as well as tender leaves used in the preparation of <i>bihu</i> specific recipe.
71	<i>Musa balbisiana</i> Colla	Musaceae	Kol gas	Inflorescence is used in the preparation of <i>bihu</i> specific recipe.

72	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Panarnawa	Leaves are used in the preparation of <i>biyu</i> specific recipe.
73	<i>Nyctanthes arbortristis</i> L.	Nyctaginaceae	Sewaliphul	Tender leaves are used for the preparation of cuisine
74	<i>Rhynchostylis retusa</i> (L.)	Orchidaceae	Kopouphool	The female <i>biyu</i> dancers decorate their hair bun with the inflorescence of this orchid.
75	<i>Oxalis corniculata</i> L.	Oxalidaceae	Tengasitenga	Leaves and stems used in the preparation of <i>biyu</i> specific recipe.
76	<i>Oxalis debilis</i> H.B.K. var. <i>corymbosa</i> (DC.) Lour.	Oxalidaceae	Bortengeshi	Leaves are used in the preparation of <i>biyu</i> specific recipe.
77	<i>Peperomea pellucid</i> L.	Piperaceae	Panounuaxaak	Tender shoots are used in the preparation of <i>biyu</i> specific recipe.
78	<i>Piper bettle</i> L.	Piperaceae	Pan	Leaves with Areca nuts are used to welcome guest and for worship.
79	<i>Piper longum</i> L.	Piperaceae	Pipolee	Leaves are used in the preparation of <i>biyu</i> specific recipe.
80	<i>Bacopa monnieri</i> (L.) Pennell.	Plantaginaceae	Brahmi	Tender shoots are used in the green cuisine.
81	<i>Plantago erosa</i> Wall.	Plantaginaceae	Singapat	Leaves are used in the preparation of <i>biyu</i> specific recipe.
82	<i>Bambusa tulda</i> Roxb.	Poaceae	Jatibah	(i) The middle portion of Bamboo is cut into pieces in a triangular shaped stick and slices of fruits are stitched to it, becomes easy to handle at the time of throwing over the cow's body after bath at the river bank and pond with a mild speed. It is called <i>Saat Bari</i> . (ii) It is also used for preparation of musical instruments namely <i>Taka</i> , <i>Gagana</i> , <i>Sutuli</i> played with <i>biyu</i> dance and <i>Husori</i> , a folk singing practice.
83	<i>Fagopyrum esculentum</i> Moench.	Polygonaceae	Sutiyalofa	Leaves are used in the preparation of <i>biyu</i> specific recipe.
84	<i>Polygonum microcephalum</i> Wall.Ex D.Don	Polygonaceae	Madhuxulung	Leaves are used in the preparation of <i>biyu</i> specific recipe.
85	<i>Polygonum plebeium</i> R.Br.	Polygonaceae	Bonjaluk	Leaves are used in the preparation of <i>biyu</i> specific recipe.
86	<i>Rumex nepalensis</i> Spreng.	Polygonaceae	La-barua	Leaves are used in the preparation of <i>biyu</i> specific recipe.
87	<i>Polygonum lapathifolium</i> L.	Polygonaceae	Madhuritenga	Tender shoots are used in the preparation of <i>biyu</i> specific recipe.

88	<i>Portulaca oleracea</i> L.	Portulacaceae	Malbhugkhutura	Tender shoots are used in the preparation of <i>bihu</i> specific recipe.
89	<i>Duchesnea indica</i> (Andr.) Focke	Rosaceae	Gorukhis	Tender shoots are used in the preparation of <i>bihu</i> specific recipe.
90	<i>Hedyotis corymbosa</i> (L.) Lamk.	Rubiaceae	Bonjaluk	Tender shoots are used in the preparation of <i>bihu</i> specific recipe.
91	<i>Mussa endaroxburghii</i> Hk.f.	Rubiaceae	Sukloti	Leaves are used in the preparation of <i>bihu</i> specific recipe.
92	<i>Paeduria foetida</i> L.	Rubiaceae	Bhedai-lota	Leaves are used in the preparation of <i>bihu</i> specific recipe.
93	<i>Murraya koenigii</i> (L.) Spreng.	Rutaceae	Noro-singho	Aromatic leaves are used in <i>bihu</i> cuisine
94	<i>Zanthoxylum nitidum</i> (Roxb.) DC.	Rutaceae	Tezmui	Leaves are used in the preparation of <i>bihu</i> specific recipe.
95	<i>Houttuynia cordata</i> Thunb.	Saururaceae	Mosundori	Leaves are used in the preparation of <i>bihu</i> specific recipe.
96	<i>Smilax perfoliata</i> Lour.	Smilacaceae	Tikonibarua	Leaves are used for <i>Jag</i> (fumigation) when the cows return to their shed in the evening of <i>Goru Bihu</i> .
97	<i>Solanum melongena</i> L.	Solanaceae	Begenā	Slices of fruits are inserted in the ‘ <i>Saat Bari</i> ’ and beaten the cow after bath.
98	<i>Solanum indicum</i> L.	Solanaceae	Tita Bhekuri	Leaves and fruits used in the preparation of <i>bihu</i> specific recipe.
99	<i>Solanum nigrum</i> L.	Solanaceae	Pokmou	Leaves and fruits are used in the preparation of <i>bihu</i> specific recipe.
100	<i>Solanum torvum</i> Sw.	Solanaceae	Hatibhekuri	Fruit and leaves are used in the preparation of <i>bihu</i> specific recipe.
101	<i>Solanum tuberosum</i> L.	Solanaceae	Potato	Tender shoots and tubers are used in the preparation of <i>Bihu</i> specific recipe.
102	<i>Lindernia ruellioides</i> (Colsm.) Pen	Scrophulariaceae	Kasidoriya	Leaves are used in the preparation of <i>bihu</i> specific recipe.
103	<i>Crystella parasitica</i> (L.) Lev.	Thelypteridaceae (fern)	Bihlongoni	Leaves are used for fumigation as insect repellent on the day of <i>Goru Bihu</i> .
104	<i>Alpinia nigra</i> (Gaertn.) B.L.Burt	Zingiberaceae	Tora	The fibre of the plant is used to make rope called <i>Pogha</i> which is tied around the neck of the cow during <i>Goru Bihu</i> .

105	<i>Curcuma longa</i> L.	Zingiberaceae	Halodhi	(i) Paste of rhizome is used for rubbing the body of cow during the bath at <i>Goru Bihu</i> . (ii) The paste is also used by the people as exfoliating agent during bath at <i>Goru Bihu</i> for healthy, bright and disease free skin. (iii) The rhizome pieces are also used in <i>Saat Baari</i> .
106	<i>Zingiber officinale</i> Roscoe.	Zingiberaceae	Ada	Rhizome is used for the preparation of cuisine

Cultural practices are often deeply rooted in a community. Cuisine is a part of tradition that is frequently passed down for generations. Certain recipes may have interesting and lasting influences on the uniqueness of the community. As the *Bohag Bihu* is celebrated at the beginning of the spring season of the year, during this period, all plants proliferate with tender shoots. These new growths are precious sources of varied nutrients and minerals and are easily available in Assam in abundance. It is noteworthy to mention that Assamese people curate a *Bihu*-specific cuisine on the first day of *Bohag Bihu*, the first month of the Assamese calendar. This specific dish is popularly known as *Akhoh ata sak*, the meaning is 101 numbers of leafy vegetables [5],[6]. The people of Assam acquired the knowledge of using numerous plant species in the recipe over an inordinate time-span. In reality, 101 numbers only signify most of the available plants of that locality; the number and variety of plants vary in different areas. The significance of preparing this kind of recipe with herbs on the first day of the year is to boost or enhance immunity. The majorities of these leafy vegetables are of medicinal importance and help to protect people from diseases and bless people with health.

Another ritual is observed during the day of *Goru (Cattle) Bihu*. The day of *Goru bihu* starts with the cleaning of the cattle with a special paste prepared with different ingredients listed in the table 1. The paste is applied to the body of the cow during bathing. The same paste is also used as an exfoliating agent for human beings during a bath to prevent different skin diseases and also for brightening skin. The middle portion of the bamboo is cut into pieces in a triangular-shaped stick and slices of vegetables like Eggplant, Ash-gourd, *Garcinia*, Bitter gourd, etc. are stitched to it, called *Saat Bari*, and then patted all over the body of the cow after bath and also fed, wishing their good health. During the evening, fumigation with some insect repellent plants is used to remove flies and insects from the cow shed and household. This practice signifies the maintenance of the good health of cattle. On the first day of *Bohag Bihu*, households use *Mesua ferrea* (Nahar) leaves to protect their homes from the *Bordoisila* (pre-monsoon storms). A Sanskrit mantra (sacred sound) dedicated to Lord Shiva is written on the leaves to invoke protection against lightning and wind. These inscribed leaves are then hung above the main doorway or tucked into the roof of the house. It is deeply believed that this ritual wards off lightning and destructive winds throughout the coming year.

The famous Assamese folk dance (*Bihu*), performed in *Bohag Bihu*, is also associated with agriculture and fertility. The female bihu dancers traditionally use the inflorescence of Foxtail orchid/*Kopouphul* (*Rhynchostylis retusa*, the state flower of Assam) to adorn their hair-bun, which has been used to treat wounds, fever, cough, urinary troubles, anaemia, jaundice, and indigestion, paralysis, rheumatism, piles, irregular menstruation, skin infections, and kidney stones with its aesthetic appeal [7],[8],[9],[10]. Paste of Henna/*Jetuka* (*Lawsonia inermis* L.) leaves is applied on the fingernails, palms and feet on the day of Manuh (human) *Bihu* to prevent different skin diseases [11] and also as traditional fashion practices that are also believed to bring good luck and prosperity. These kinds of traditional practices protect natural resources and promote healthy ecosystems.

Conclusion

This is an important attempt to document the traditional knowledge in a scientific way so that the future generation can also appraise it. In recent decades, it has been observed that the interest of the young generation regarding indigenous knowledge is gradually diminishing, and they fail to appreciate the value of nature's gift. Indigenous people use various plant resources to cure ailment and as natural remedies for their numerous day

today needs, thus scientific documentation and proper identification held significant importance and future potential.

In the present scenario, as North East India is emerging as an economic and cultural hub of India, Assam is also merging towards a transitional stage where urbanisation and modern economy-oriented education are prioritised. This causes a severe peril towards indigenous knowledge and generation's old understanding and reliance on nature. Therefore, the present study was conducted as a part of scientific documentation and recorded various plants used by Assamese people during the festival of *Bihu*, and it is presumed that this will provide baseline data for further research. It is also anticipated that this type of work will lead towards understanding of the proper value of ancient knowledge and the significance of nature, and also encourage people to pursue a sustainable way of life.

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Conflict of Interest

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

Author Contributions

The article was conceptualized by SH, original draft written by BS. All authors discussed the results and final editing was carried out by both BS and BK.

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