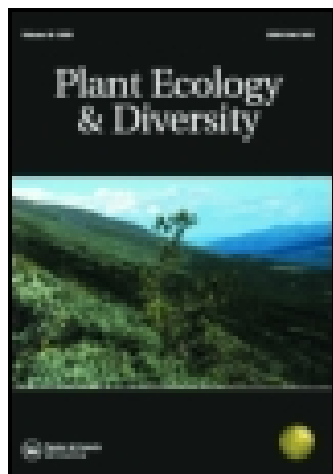


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### III. Remarks on some Fibrous Plants of Madras

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long," but closely resembles what I find in *E. palustris*, although it is perhaps even slightly more obovate. In *E. uniglumis* also I find the fruit to be better described by pyriform (bluntly obovate, and more narrowed at the base than in obovate) than by "rotund-obovate."

(3.) *Scirpus Holoschœnus*, Linn.—I possess a single stem of the plant, said to have been found near Watchet in Somersetshire, which was given to me many years since by Professor Henslow, but by whom gathered it is now useless to inquire. As the late Professor sent a large quantity of duplicate specimens of British plants to the Botanical Society, it is probable that the piece received by Dr Carrington is part of the same set. The only authority for its being found near Watchet, is contained in Collinson's "History of Somerset," from whence it is copied into the "Botanist's Guide" (ii. 748) in the following form:—"Near the sea-side below Watchet," and from thence into the "New Botanist's Guide." It is one of a considerable number of localities of plants communicated to Collinson's work by Mr W. Sole, the author of the "British Mints," and is therefore probably correct. The record will be found in Collinson's book at page xxi of the Introduction. When printing the first edition of the "Manual," I believed that Mr Lingwood had gathered *S. Holoschœnus* at Watchet, but soon afterwards learned from him that he did not do so; neither could I learn by whom the specimens given away by Professor Henslow were gathered.

In the earlier part of the "Botanist's Guide" it was only stated to occur "on the sea-shore in this county (Somerset), Robson;" and that is all that we learn from Robson's "British Flora" (p. 240), except that he adds "Devon and Hampshire."

Other authors give Petiver and Ray as authorities for the Somerset station. Ray has very little to do with the matter. In his "Historia Plantarum" (ii. 1303), he says of the plant in question:—"Nuper etiam in Anglia detexit, in comitatu Somerseti D. Stephens." In the "Synopsis" (ed. 3, p. 429) he says, "found by Mr Stephens in Brounton Burroughs in Devonshire;" and Dillenius adds, "it also grows in Somersetshire and Hantshire; *Pet. Conc. Gr.*, 195." As the "Historia" was published long before this posthumous edition of the "Synopsis," this correction was doubtless made by Ray himself, who had learned that Somerset was put in the place of Devon in the "Historia." We are thus reduced to Petiver, who states, that "the Reverend Mr Stephens first found this in Devon; it also grows in Somerset and Hantshire." Therefore there is no trace of Watchet in these books, and the correctness of that station for *Scirpus Holoschœnus* rests upon the authority of Sole. It is greatly to be desired that the district should be carefully examined. It is of small extent, and the presence or absence of the plant might soon be ascertained.

### III. Remarks on some Fibrous Plants of Madras. By Dr ALEXANDER HUNTER.

In this paper Dr Hunter says—From experiments that I have tried in cleaning fibres of a great number of Indian plants, I feel satisfied that the steeping and rotting process is not suited to the heat of the climate, as plants putrefy rapidly under water in India, and the fermentative process, which goes on for weeks sometimes in a cold climate, is occasionally completed in from twelve to eighteen hours in India, and is immediately succeeded by putrefaction, which discolours and takes the strength from fibres. The best method of separating the woody fibre and bark (or boon of flax,

as it is called) is to crush or beat the plant as soon after it is cut as possible, taking care not to double up the stalks, otherwise the fibres get entangled like tow; continue the beating for half an hour, and then place in water for a night; to remove the sap, squeeze and hang up the bundles in the shade to dry; when thoroughly dry, the bundles may be rolled up in coarse gunny bags of cloth, and well beaten on a board with a wooden mallet. This separates the woody fibre and boon, leaving the flax soft, white, and very pliant. The more the fibre is beaten and knocked about, the finer and softer the flax becomes, and the interposition of the cloth prevents the fibre from being cut by the beating; it should afterwards be combed or hackled.

IV. *Remarks on the Cotton Plant of the Peruvian Coast, and its Cultivation in India.* Communicated to the Madras Agri-Horticultural Society by C. R. MARKHAM, Esq.

The author remarks:—While travelling in the Coimbatore and Madura collectorates, in the autumn of 1860, I was struck with the resemblance of the climate in many respects to that of the coast-valleys of Peru. This part of India appeared to me to be admirably adapted for the cultivation of the valuable species of cotton which is indigenous to the Peruvian coast-valleys, while it seemed unlikely that North American cotton could ever be extensively raised to advantage in so dry a climate. It is very important to introduce a cotton with a longer staple than that of the indigenous plant of India, and therefore better suited to the demands of Manchester, which will thrive in the exceedingly dry climate of the Madras Presidency. I have therefore made arrangements to obtain supplies of cotton seeds from the driest part of the coast region of Peru for introduction into India. The staple of this Peruvian cotton is longer than that of "Uplands" Pernambuco, and much longer than any indigenous Indian cotton, though shorter of course than Egyptian or "Sea Island." The respective lengths of the staples of different kinds of cotton, compared with Peruvian, are as follow:—

Species of Cotton.	Minimum inches.	Maximum inches.	Mean inches.
Sea Island, . . . . .	1.41	1.80	1.61
Egyptian, . . . . .	1.30	1.52	1.41
Peruvian, . . . . .	1.10	1.50	1.30
Brazilian, . . . . .	1.03	1.31	1.17
New Orleans or "Uplands," .	0.88	1.16	1.02
"Uplands" grown in India, .	0.95	1.21	1.08
Indigenous Indian Cotton, .	0.77	1.02	0.89

The Peruvian cotton plant is indigenous and perennial, and was cultivated by the subjects of the Incas in the coast valleys long before the discovery of Peru by the Spaniards. They irrigated their cotton fields by means of channels conducted from the numerous lakes in the Andes, picked and cleaned the cotton, and wove it into clothes. The Jesuit Acosta, who wrote shortly after the Spanish conquest, says that "cotton groweth in hot soil, and there is great store in the valleys on the sea coast of Peru." The ancient Peruvians used a machine for cleaning their cotton, which closely resembled the Indian *churka*. It consisted of two rollers, about the thickness of a finger, with handles at opposite ends, which turned them different ways; the wool was pinched through by degrees, and, as the seeds could not pass between the rollers, they were stripped off, and dropped outside. The same machine was, according to Frezier, used by