

*Some Observations on the French Macreufe, and the Scotch Bernacle; together with a continuation of the Account of Boyling, and other Fountains. By Dr. Tancred Robinfon Fellow of the Royal Society.*

**I** Find fo many mistakes amongst Natural Writers, and fome learned Men, concerning the Bird at *Paris* call'd *Macreufe*, and in other parts of *France*, *Macroul*, or *Diable de Mer*, that I think it no improper fubject for the entertainment of Your Curiofity. The *French* eat it upon *Fifh-days*, and all *Lent*, thinking it to be a fort of *Fifh*, or a *Marine Animal* with cold blood, or elfe a *Bernacle* generated either out of rotten or corrupted wood floating upon the *Sea*; or out of certain fruits falling into the water, and there *Metamorphofed* into a *Bird*; or elfe from a kind of *Sea-shells* adhering to old *Planks* and *Ship bottoms*, called *Conche Anatiferæ*; whereas the *Bernacle* (as alfo the *Macreufe* it felt,) is *Oviparous*, and of the *Goos-kind*; and the shells themfelves contain a *teftaceous Animal* of their own fpecies, as the *Oyfter*, *Cockle*, and *Mufcle* doth. *Gefner* himfelf (though the moft learned, diligent, and faithful of any that ever meddled with the *History of Animals*;) was lead into the firft error by *Gyraldus*, *Boethius*, and *Turner*; *Sr. Robert Moray* fell into the third and laft miftake *Philofoph. Tranfact.* N. 137. The learned *Sr. Robert Sybbald*, and *Monsieur Graindorge* have indeed confuted thefe æquivocall Generations of the *Bernacle* and the *Macreufe*; yet they both make them to be the fame *Bird*; *Prodrom. Hiftor. Nat. Scotiæ*; and in the *Hiftoire des Macreuſes*; whereas they are of different Tribes; the *Bernacle* of the *Goofe*, and the *Macreufe* of the *Duck-*

Duck-kind. The many Vulgar errors concerning the Origin of these Birds, have sprung from the positive Relations of unwary Observers; and from the Writings of great men, as *Munster*, *Olaus Magnus*, *Cambden*, *Cardan*, *Lesley*, *Julius Scaliger*, *Wormius*, *Mayerus*, &c. *Kircher*. (though credulous enough) himself, mistrusted their Relations, and fancied that the Eggs of these Birds might sometimes float from the Northern Seas upon these Coasts, and there sticking to, and hatching upon Planks, Ship bottoms, Trees (or any rotten wood,) might give occasion to the rise of the aforementioned mistakes. That the *Bernacle* and *Macreufe* are both oviparous, is beyond all doubt; the Anatomy of their parts serving for Generation; many late Voyages into the North; their laying Eggs; and sometimes breeding among us, are all evident proofs thereof.

Monfieur *Cattier* in his *traitè de la Macreufe* doth affirm that the French *Macreufe* is the greater *Coot* of *Bellonius*; and Mr. *Willughby Ornitholog*: p. 320. seems to be of the same opinion; there are some learned men, who think the *Macreufe* to be the *Puffin* of the *Sillies*, and *Isle of Man*; others take it for a sort of *Colymbus* or *Mergus*, *Doucker* or *Diver*; but after all the French *Macreufe* is of the *Duck-kind*, and is the *Scoter*, or *Anas niger minor* described by Mr. *Ray* in Mr. *Willughby's Ornitholog*: p. 336. As the Skins of the Male and Female, together with their lively Pictures, brought lately from *Paris*, by that most Curious and Worthy Gentleman Mr. *Charlton*, do demonstrate; However for your greater satisfaction, you may consult Mr. *Ray's* letter, whose knowledge in the History of Animals, and of Nature in Generall, is as great and extraordinary, as it is particularly excellent in that of Plants.

The *Macreufe* is frequently taken in nets placed under water, upon the Coasts of *Normandy* (most plentifully at the mouth of the *Sein*,) of *Languedock*, and *Provence*; and

and I am confident, I have seen it upon the *Laguna* of *Venice*, at the mouths of the *Breuta*, *Addesis*, and the *Po*. A Duck very like unto this (if not the same,) I saw upon the *Mare Mortuum*, and the Lake *Avernus*, as also many other Water-fowl feeding upon, and flying over *that* water, reported by many of our own, as well as forrein Writers, to kill Birds at a distance: I observed severall land Fowl to fly over that Lake, without the least disturbance, from all sides, and ends, North, South, East, and West; from towards *Cuma* to the *Grott* of the *Sybill*; from the mines of the Temple of *Apollo*, to where that of *Mercury* stood; But peradventure the Poysonous Steams (if there are any peculiár to that Lake,) sometimes vanish, and return again, or else may be alter'd by new *Effluvioms* intermingled with them.

When I delivered my thoughts concerning *Boyling Fountains*, their Varieties, and causes, I had not then time enough to mention the *Burning* ones, except only that near *Wigan* in *Lancashire*, with which those *burning Fountains* near *Grenoble* in *Dauphinè*, near *Cibinium* or *Hermanstadt* in *Transylvania*, near *Chermay* a Village in *Switzerland* in the *Canton* of *Friburgh*, and that not far from *Cracovia* in *Poland*, do agree in many particulars, as in being actually cold, yet inflammable and taking fire at a distance; upon the application of any lighted body; (which the *Boyling* springs near *Peroul* will not do;) this ought to be understood of them in their Sources, because when removed from thence, neither the waters, nor their earths will produce any such *Phænomena*, as boyling, or flaming: It were worth the experimenting and observing nicely, what these waters, or their earths contain, or whether at any time some *Naptha*, or *Petroleum* may not be found floating on their superficies; though I never yet heard that the surfaces of such springs, as throw up that Oily substance, would catch fire at a distance; neither is it affirmed (that I know

know of, ) by any writer, that any hot Boyling Fountains will take flame at a distance, as some of the bubbling cold ones do. Monsieur *Boissieu* hath written particularly of the burning Fountain in *Dauphinè*.

*Messrs Vette & Vollgnad* have given their observations on the flaming springs neer *Hermanstadt*, but I do not remember that they made any particular Analysis of the water, Mud, Sand, Clay, or Earth, or any considerable tryals upon them; I am apt to believe, that there may be Veins of the *Pyrites* near those places, the inflammability of which Minerall hath already been discoursed of, and made very clear by Dr. *Lister*, to whose papers I refer you, *Philosophical Transact. N. 157*. The ingenious Author of the letter from *Poland*, Printed in the *Journal des Scavans*, An. 1684; relating the History of a burning Fountain in the Palatinate of *Cracovia*, affirms that upon Evaporating the water a dark or Pitch-like substance may be extracted, which cures the most inveterate Ulcers in a very short time; and that the Mud itself is very powerfull against Rheumatick, and Gouty pains, Palfies, Scabs, &c. The inhabitants of an adjacent Village, drinking much of this spring, do generally live to 100 and 150 years, which he attributes to the fanative Vertue of the Water.

The *Naptha*, or bituminous substance floating upon a spring at *Pitchford* in *Shropshire*, and upon *St. Catharine's* fountain neer *Edinburgh*, hath been succesfully us'd in Ulcerous and cutaneous distempers; many such-like Fountains of *Petroleum*, and oily substances, are to be met with up and down, as in the Island of *Zant*, very plentifully; neer *Gabian* in the Road from *Montpelier* to *Beziers* in *Languedoc*; In the *Valtaline*. subject to the *Grifons*; at the foot of Mount *Zebio* in the Dutchy of *Modena*, not to mention any of the places written of already by *Varenius*. The Inhabitants living neer these fat oily springs take great care to gather and separate

the bituminous substances from the water, making very considerable advantages of them, for Mechanical, and Medicinal uses; I have seen them gather it up with Ladles, and put it into large filters; or into great Funnels stop't at the bottom, or else into Barrels set on one end, which have Spiggots near their bottoms, when they are full and have stood a while, they open the spiggot or stoppell to let out the water, and when the oyl or bituminous substance begins to come, they presently stop it again; the last of which Mr. Ray did likewise observe at *Gabian* in *Languedoc. Observ. Topograph.* p. 462. Whether they make use of any of these ways in *Zant*, I am yet to learn, though both the learned Sr. *George Wheeler* and *Monsieur Spon*, in their excellent Voyages have described the Pitch-springs of that Island.

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