mate ; some, that it retiree to hollow trees and caverns, where it lies in a torpid ſtate ; and others have affirmed, that it lies in the ſame ſtate in the bottom of lakes and under the ice. The firſt opinion is ſupported by Marſigh, Ray, Wil­loughby, Cateſhy, Reaumur, Adanſon, Buffon, *8c.* The firſt and ſecond opinion are both adopted by Pennant and White. The third is ſanctioned by Schaeffer, Hevelius, Derham, Klein, Ellis, Linnæus, Kalm : and the ſecond and third have been ſtrongly defended by the honourable Daines Barrington.

Though we cannot help giving a preference to that opi­nion which appears the moſt probable, yet we do not think that any one of them is eſtabliſhed upon ſuch evidence as ſo curious a ſubject requires, and as the advanced ſtate of na­tural history would lead us to expect. We ſhall therefore ſtate the arguments upon which each opinion is founded as fairly and diſtinctly as we can, and as often as poſſible in the very words of their reſpective advocates. By doing ſo, we ſhall place the whole ſubject before the eyes of our readers, who will thus have an opportunity of examining it atten­tively, and of making ſuch obſervations and experiments as may lead to the truth.

Thoſe who assert that the ſwallow migrates to a warmer country in winter, argue in this manner : That many birds migrate, is a fact fully proved by the obſervations of natu­ral hiſtorians (ſee Migration). Is it not more probable, therefore, that ſwallows, which diſappear regularly every ſeaſon, retire to ſome other country, than that they lie in a ſtate of torpor in caverns or lakes ? But this opinion does not rest on probability, it is founded on facts.

We often ſee them collected in great flocks on churches, rocks, and trees, about the time when they annually diſap­pear. The direction of their flight has been obſerved to be Southward. Mr White, the ingenious hiſtorian of Selborne, travelling near the coaſt of the Britiſh Channel one morning early, ſaw a flock of ſwallows take their departure. At the beginning of his journey he was environed with a thick fog; but on a large wild heath the mill began to break, and diſcovered to him numberleſs ſwallows, cluſtered on the ſtanding buſhes, as if they had rooſted there : as ſoon as the ſun burſt out, they were inſtantly on wing, and with an eaſy and placid flight proceeded towards the ſea. Af­ter this he ſaw no more flocks, only now and then a ſtraggler.

Mr Laſkey of Exeter obſerved attentively the direction which a flock of ſwallows took in the autumn of 1793. On the 22d of Sept. about ſeven o’clock in the morning, the wind being eaſterly, accompanied with a cold drizzling rain, Mr Laſkey’s houſe was entirely covered with houſe-ſwallows. At intervals large flocks arrived and joined the main body, and at their arrival an unuſual chirping commenced. The appearance of the whole company was ſo lethargic, that he found it an eaſy matter to catch a conſiderable number of them, which he kept in a room all that day. By heating the room they all revived : he opened four of them, and found their ſtomachs quite full. The main body occupied the houſe top all day, except for two hours. About half an hour after nine on the morning of the 23d, there was a great commotion, with very loud chirping, and within a few minutes after, the whole multitude took their flight, in a di­rect ſouth-eaſt direction, having aſcended to a great height in the atmoſphere. He let go the birds which he had caught, at certain intervals till four o’clock, and they all flew toward the ſame quarter.

Not only has the direction of their flight been obſerved, but they have alſo been found on their passage at a great diſtance from land. Mr Adanſon informs us, that

about 50 leagues from the coaſt of Senegal four swallows ſettled upon the ſhip on the 6th of October; that theſe birds were taken ; and that he knew them to be European ſwallows, which, he conjectures, were return­ing to the coaſt of Africa. Sir Charles Wager’s autho­rity may alſo be appealed to : “ Returning home (ſays he) in the ſpring of the year, as I came into foundings in our channel, a great flock of ſwallows came and ſettled on all my rigging ; every rope was covered, they hung on one another like a ſwarm of bees ; the decks and carving were filled with them. They ſeemed almost famiſhed and ſpent, and were only feathers and bones ; but, being recruit­ed with a night’s reſt, took their flight in the morning.” This vaſt fatigue proves that their journey muſt have been very great, conſidering the amazing ſwiftneſs of theſe birds : in all probability they had crossed the Atlantic ocean, and were returning from the ſhores of Senegal, or other parts of Africa; ſo that this account from that moſt able and honeſt seaman, confirms the later information of Mr Adanson.

Mr Kalm, who is an advocate for the opinion that ſwal­lows lie immerſed in lakes during the winter, acknowledges, that in croſſing the Atlantic from Europe a ſwallow light­ed on the ſhip on the 2d September, when it had passed on­ly two-thirds of the ocean. Since, therefore, ſwallows have been ſeen assembled in great flocks in autumn flying off in company towards southern climes, ſince they have been found both in their paſſage from Europe and returning again, can there be any doubt of their annual migration ? —For Mr Barrington’s objections to this opinion, ſee Mi­gration, p. 5.

The ſecond notion (ſays Mr Pennant) has great antiqui­ty on its side. Ariſtotle and Pliny give it as their belief, that ſwallows do not remove very far from their summer ha­bitation, but winter in the hollows of rocks, and during that time lose their feathers. The former part of their opinion has been adopted by ſeveral ingenious men ; and of late ſeveral proofs have been brought of ſome ſpecies, at leaſt, ha­ving been diſcovered in a torpid ſtate. Mr Collinson fa­voured us with the evidence of three gentlemen, eye-witnesses to numbers of land martins being drawn out of a cliff on the Rhine, in the month of March 1762. And the honourable Daines Barrington communicated to us the following fact, on the authority of the late Lord Belhaven, That numbers of ſwallows have been found in old dry walls and in ſand- hills near his Lordship’s ſeat in Eaſt Lothian ; Trot once on­ly, but from year to year ; and that when they were exposed to the warmth of a fire, they revived. We have alſo heard of the ſame annual diſcoveries near Morpeth in Northumber­land, but cannot ſpeak of them with the ſame assurance as the two former : neither in the two laſt inſtances are we cer­tain of the particular ſpecies.

“Other witnesses crowd on us to prove the reſidence of thoſe birds in a torpid ſtate during the ſevere ſeaſon. Firſt, In the chalky cliffs of Suffex ; as was ſeen on the fall of a great fragment some years ago secondly, In a decayed hollow tree that was cut down, near Dolgelli, in Merionethshire. Thirdly, In a cliff near Whitby, Yorkſhire ; where, on digging out a fox, whole bushels of ſwallows were found in a torpid condition. And, laſtly, The reverend Mr Conway of Sychton, Flintſhire, was ſo obliging as to communicate the following fact : A few years ago, on look­ing down an old lead-mine in that county, he obſerved num­bers of ſwallows clinging to the timbers of the ſhaft, ſeemingly asleep ; and on flinging ſome gravel on them, they just moved, but never attempted to fly or change their place : this was between All Saints and Chriſtmas.