that the process of colonisation took place everywhere simultaneously, and to an exactly corresponding extent; indeed, that would not entirely explain the phenomenon, for we know that artificial reservoirs and ponds become in time stocked with characteristic forms. But at the present day, as in the past, plants and animals which have accustomed themselves to life in fresh water, wherever that may have taken place, tend to become widely distributed from their centre of origin.

The agencies which have effected this distribution are to a large extent those we have already discussed in the other connection, but we shall see that their relative importance is not necessarily the same, and that there are certain others to be mentioned. Active swimming or crawling animals, such as fish, certain Crustacea, and molluscs, would be able to make their way from one river-system to another, probably at a wet season of the year. We may add to the list of actively migratory forms several aquatic insects (such as *Dytiscus* and *Nepa*) which are known to be powerful flyers, capable of making long excursions by night.

But passive transportation has probably been the most effectual agent in securing the spread of fresh-water organisms. This may be by the aid of active forms, such as birds or insects, or by purely mechanical means, but it is in either case directly associated with the power of resisting unfavourable surroundings, which we know has been so notably acquired in many instances. Darwin himself studied this matter many years ago, and gives some suggestive facts in his great work, *The Origin of Species*.

There seems little doubt that the enormous range so characteristic of many fresh-water and swamp plants is largely due to the seeds being carried long distances in mud adhering to the feet and beaks of wading birds. This is doubtless also the means of transport for the resistant reproductive bodies of various fresh-water animals. An experiment which Darwin carried out certainly suggests that a number of molluscs may be distributed in a similar way, attached as small newly-hatched individuals to the feet of aquatic birds.

Turning from birds to insects, we have evidence that sometimes, at all events, strongly-flying forms have carried with them in their flight small bivalves firmly adhering to a leg. We have seen how the locomotory power of fishes has been made use of by the mussels *Anodon* and *Unio*, but fishes may be instrumental too in effecting the distribution of certain plants. Fresh-water fish often swallow various seeds, which may retain their power of germination when passed after some time in the fæces.

A further example of passive migration is interesting as being due to artificial assistance. This is the case of *Dreissensia polymorpha*, a