VIII. On the signs exhibited by animals which indicate changes of the weather, with remarks on other prognostications

M. Toaldo

To cite this article: M. Toaldo (1799) VIII. On the signs exhibited by animals which indicate changes of the weather, with remarks on other prognostications , Philosophical Magazine Series 1, 4:16, 367-375, DOI: [10.1080/14786449908677090](https://doi.org/10.1080/14786449908677090)

To link to this article: <http://dx.doi.org/10.1080/14786449908677090>

Published online: 25 Jan 2010.

Submit your article to this journal [↗](#)

Article views: 2

View related articles [↗](#)

across somewhat obliquely before, and conical towards the tail. As the patient, before she fell ill, had used a great deal of milk and cheese, M. Wilke was of opinion, that some of the eggs of these flies had been conveyed into her stomach in the rind of the cheese.

VIII. *On the Signs exhibited by Animals which indicate Changes of the Weather, with Remarks on other Prognostications.* By M. TOALDO *.

THE fluids and solids of organised beings, and their animal machines, are constructed in such a manner that a certain degree of motion puts them in a good state, while an augmentation or diminution of it deranges and destroys that state. The fluids, which by their nature are easily moved, as well as the fibres, which are highly susceptible of irritation, are readily affected by changes of the surrounding atmosphere, and suffer from their impressions, whether the air varies in its weight or qualities, or is changed in regard to its elasticity. We find, among those who are sound and in perfect health, vivacity, good spirits, and great agility, when the air is pure and elastic; on the other hand, when the air becomes light and damp, and is deprived of its elasticity, it throws the body into a state of languor and debility. Valetudinarians, whose constitutions are delicate, or who are advanced in life, are much sooner sensible of the impressions occasioned by changes of the weather than those who are strong and robust. In general the senses of men, who in their way of life deviate from the simplicity of nature, are coarse, dull, and void of energy. Those also who are distracted by a thousand other objects, scarcely feel the impressions of the air; and if they speak of them to fill up a vacuum in their miserable and frivolous conversation, they do it without thinking of their causes or effects, and without

* From his *Meteorological Essays*.

ever paying attention to them. But animals which retain their natural instinct, which have their organs better constituted and their senses in a more perfect state, and which besides are not changed by vicious and depraved habits, perceive sooner, and are more susceptible of the impressions produced in them by variations of the atmosphere, and sooner exhibit signs of them.

Until the new discovery of animal electricity little attention was paid to these signs, which were consequently ascribed to a certain natural prescience. But as the electric matter issuing from the earth diffuses itself through the atmosphere, it must penetrate and agitate the frail machines in question; and as it carries with it vapours and exhalations of various kinds, these must produce, on machines so delicate, different sensations, which make them move in a different manner; and, according as the received impression is agreeable or troublesome, they exhibit signs of joy or sadness; send forth cries, or are silent; move, or remain at rest; as is observed in all kinds of animals, without excepting man, when the weather is about to change.

In the last place, internal and animal electricity, which in all probability is the agent of life and the grand source of organic motion, must be as much subject to modifications as the external electricity, from which it acquires new force and activity by the vapours and humidity of the atmosphere, which absorbing the electric matter in abundance, or serving it as a conductor, draws it off from the animal machine. Hence arises that languor and debility which are experienced during wet weather and when the south winds prevail; and for the same reason the moisture which has penetrated the organs, at least those that are weak or have suffered any hurt or injury, or been exposed to some new agitation, produces uneasiness and occasions pain. It is difficult to explain clearly and with precision how all this takes place; that is, how the electricity is excited, and by what mechanism exhalations and vapours affect animals, and produce

duce changes in their bodies, since we are not acquainted with the curious organisation of the most delicate parts of these machines; but we can observe and perceive the progress and general consequences of these phenomena, as well as of those by which they are produced. The following are the common and familiar signs exhibited by animals, which indicate changes of the weather, and which are not taken so much from the agricultural poet, who first collected them, as from common observation:

1. When the bats remain longer than usual abroad from their holes, fly about in greater numbers and to a greater distance than common, it announces that the following day will be warm and serene; but if they enter the houses, and send forth loud and repeated cries, it indicates bad weather.

2. If the owl is heard to scream during bad weather, it announces that it will become fine.

3. The croaking of crows in the morning indicates fine weather.

4. When the raven croaks three or four times, extending his wings and shaking the leaves, it is a sign of serene weather.

5. It is an indication of rain and stormy weather when ducks and geese fly backwards and forwards; when they plunge frequently into the water, or begin to send forth cries and to fly about.

6. If the bees do not remove to a great distance from their hives, it announces rain; if they return to their hives before the usual time, it may be concluded that it will soon fall.

7. If pigeons return slowly to the pigeon-house, it indicates that the succeeding days will be rainy.

8. It is a sign of rain or wind when the sparrows chirp a great deal, and make a noise to each other to assemble.

9. When fowls and chickens roll in the sand more than usual, it announces rain: the case is the same when the cocks crow in the evening, or at uncommon hours.

10. Peacocks, which cry during the night, have a pre-sensation of rain.

11. It is believed to be a sign of bad weather when the swallows fly in such a manner as to brush the surface of the water, and to touch it frequently with their wings and breast.

12. The weather is about to become cloudy, and to change for the worse, when the flies sting, and become more troublesome than usual.

13. When the gnats collect themselves before the setting of the sun, and form a sort of vortex in the shape of a column, it announces fine weather.

14. When sea-fowl and other aquatic birds retire to the sea-shore or marshes, it indicates a change of weather and a sudden storm.

15. If the cranes fly exceedingly high, in silence, and ranged in order, it is a sign of approaching fine weather; but if they fly in disorder, or immediately return with cries, it announces wind.

16. When the dolphins sport and make frequent leaps, the sea being tranquil and calm, it denotes that the wind will blow from that quarter from which they proceed.

17. If the frogs croak more than usual; if the toads issue from their holes in the evening in great numbers; if the earth-worms come forth from the earth, and scorpions appear on the walls; if the ants remove their eggs from their small hills; if the moles throw up the earth more than usual; if the asses frequently shake and agitate their ears; if the hogs shake and spoil the stalks of corn; if the bats send forth cries, and fly into the houses; if the dogs roll on the ground, and scratch up the earth with their fore-feet; if the cows look towards the heavens, and turn up their nostrils as if catching some smell; if the oxen lick their fore-feet, and if oxen and dogs lie on their right side; all these are signs which announce rain.

18. The case is the same when animals crowd together.

19. When

19. When goats and sheep are more obstinate and more desirous to crop their pastures, and seem to quit them with reluctance; and when the birds return slowly to their nests. rain may soon be expected.

Other Signs which announce Changes of the Weather.

1. If the flame of a lamp crackles or flares, it indicates rainy weather.

2. The cask is the same when the foot detaches itself from the chimney and falls down.

3. It is a sign of rain, also, when the foot collected around pots or kettles takes fire in the form of small points like grains of millet; because this phenomenon denotes that the air is cold and moist.

4. If the coals seem hotter than usual, or if the flame is more agitated, though the weather be calm at the time, it indicates wind.

5. When the flame burns steady, and proceeds straight upwards, it is a sign of fine weather.

6. If the sound of bells is heard at a great distance, it is a sign of wind, or of a change of weather.

7. The hollow sound of forests; the murmuring noise of the waves of the sea; their foaming, and green and black colour, announce a storm.

8. Good or bad smells, seeming as if it were condensed, are a sign of a change of weather; either because exhalations arise and are dispersed in more abundance, which is a sign of an increase of electricity; or because the air does not dispell or raise these exhalations, which indicates that the constitution of the atmosphere is motionless, light, and void of elasticity.

9. When the spiders webs and the leaves of the trees are agitated without any sensible wind, it is a sign of wind, and perhaps of rain; because it denotes that strong and penetrating exhalations arise from the earth.

10. These signs are less equivocal when the dry leaves and chaff are agitated in a vortex, and raised into the air.

11. A frequent change of wind, accompanied with an agitation of the clouds, denotes a sudden storm.

12. A want or too great a quantity of dew being a mark of a strong evaporation, announces rain: the case is the same with thick, white hoar-frost, which is only dew congealed.

13. If salt, marble, and glass become moist some days before rain; if articles of wood, doors, and chests of drawers swell; if the corns on the feet and the scars of old wounds become painful; all these signs indicate that aqueous vapours are exhaled from the earth, and are no doubt directed by the electric matter, which diffuses itself then in greater abundance and penetrates every body. Hence it happens that stones become moist, that wood swells, and salt becomes deliquescent by the moisture. When the stones after being moist become dry, it is a sign of fine weather.

14. On the other hand, when the weather inclines to rain, the water is seen to diminish in vases and fountains, because the humidity is then carried away by the evaporation of the electric matter.

15. It is certainly a surprising phenomenon to see the earth, after very long and very abundant rains, to be sometimes almost dry, the roads quite free from dirt, and the hands to become arid and parched. This is a sign that the rain has not altogether ceased, and denotes a continual efflux of electric matter, which being renewed carries with it, in the form of vapours, all the moisture that falls on the earth.

16. There is sometimes, however, a great deal of dirt even after a very moderate rain, which in that case is a sign of fine weather, because it indicates that evaporation has ceased. Dry stones and moist earth announce fine weather; dry earth and moist stones announce rain.

17. The winds which begin to blow in the day-time, are much stronger, and endure longer, than those which begin to blow only in the night.

18. Weather, whether good or bad, which takes place in
the

the night-time, is not, in general, of long duration; and, for the most part, wind is more uncommon in the night than in the day-time. Fine weather in the night, with scattered clouds, does not last.

19. A Venetian proverb says, that a sudden storm from the north does not last three days.

20. The hoar-frost, which is first occasioned by the east wind, indicates that the cold will continue a long time, as was the case in 1770.

21. If it thunders in the month of December, moderate and fine weather may be expected.

22. If it thunders at intervals in the spring time, before the trees have acquired leaves, cold weather is still to be expected.

23. If the wind does not change, the weather will remain the same.

Such almost are the signs of the variations of the atmosphere; but I will not be answerable for the certainty of them all. Plutarch, in his Problems, where it is asked why a horse who has escaped from a wolf becomes fleet, replies, that because, by a single action, but executed with great force and vigour, he has acquired a disposition to running and a habit of speed; or perhaps, because he is naturally swift and agile: but he adds, perhaps neither of these is true. This observation, I am afraid, will apply to some of the vulgar prognostics of the present day. For example, we are told, that it is a sign of fertility in any year when a fly is engendered in an acorn of that year; and that it is the sign of a pestilential year, if there issues from it a spider. Should the reason be asked, it might be replied, that neither of these is true. I might venture to say as much of those popular tales in regard to certain critical days of the month; yet we must still have some respect for popular proverbs, which are often founded on observation and reason. Thus it is said, that if it rains on the 3d of May, the day of the Holy Cross; or on the 23d of April, St. George's day; or the

15th of June, St. Vitus's day, &c.; in the first case the nuts will be spoiled; in the second, the figs; and in the third, the grapes. All this may be true to a certain degree, that is to say, when it rains for a certain number of days about these periods; because, if rain falls at the time when fruit-trees are in blossom, it carries off the fecundating farina, and by these means renders them barren.

In regard to the general qualities of the seasons, and their influence, attention may be paid to the following signs:— If the earth and air abound with insects, worms, frogs, locusts, &c.; if the walnut-tree has more leaves than fruit; if there are large quantities of beans, fruit, and fish; if the spring and summer are too damp; if hoar-frost, fogs, and dew come on at times when they are not generally seen, the year will be barren: the opposite signs announce fertility and abundance. Animals seem also to foresee and prognosticate fertility or barrenness: it is said that when the birds flock together, quit the woods and islands, and retire to the fields, villages, and towns, it is a sign that the year will be barren.

A great quantity of snow in winter promises a fertile year, but abundant rains give reason to apprehend that it will be barren. A winter, during which a great deal of snow and rain falls, announces a very warm summer. It is generally believed that thunder and storms in winter prognosticate abundance, because they fertilise the earth. When the spring is rainy, it produces an abundant crop of hay and of useless herbs, but at the same time a scarcity and dearth of grain. If it is warm, there will be plenty of fruit, but they will be almost all spoiled. If it is cold and dry, there will be few fruit or grapes, and silk-worms will not thrive. If it is only dry, there will be few fruit, but they will be good. In the last place, if it is cold, the fruit will be late in coming to maturity.

If the spring and summer are both damp, or even both dry, a scarcity and dearth of provisions is to be apprehended,

If the summer is dry, there will be little corn : diseases will also prevail ; but they will be more numerous if it is warm. If it is moderately cold, the corn will be late ; but there will be a great deal of it ; and the season will occasion few diseases.

A fine autumn announces a winter during which winds will prevail : if it is damp and rainy, it spoils the grapes, injures the fown fields, and threatens a scarcity. If it be too cold, or too warm, it produces many maladies. A long severity of the seasons, either by winds, drought, dampness, heat or cold, becomes exceedingly destructive to plants and animals. In general, there is a compensation for rain or drought between one season and another. A damp spring or summer is commonly followed by a fine autumn. If the winter is rainy, the spring will be dry ; and if the former is dry, the latter will be damp. When the autumn is fine, the spring will be rainy. That this alternation is in general verified may be seen in a Journal carried on for forty years, and formerly edited by M. de Poleni.

IX. *On the Effects of Oil in Cases of the Bite of Serpents ; republished from the Charlestown (South-Carolina) City Gazette*.*

Messrs. FRENEAU and PAINE,

I READ with pleasure, in your paper of the 21st of November, “ some short directions for the cure of the plague,” composed from a small pamphlet lately published by Count Berchtold at Vienna, by the use of *sweet olive oil*.

To take off the sharp edge of misfortune, or to meliorate the condition of man, is a godlike employment. Count Berchtold will be deservedly classed by the philanthropist among the benefactors to mankind.

In great cities, particularly in London, a number of per-

* From the *American Medical Repository*.