

—Earthquake Forecasting by Observing Anomaly of Animal Behaviour —

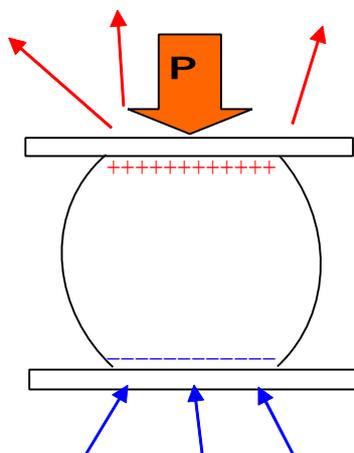
Earthquake-forecasting is possible by observing precedent anomaly of "underground current and radiated electro-magnetic wave in air" stimulated by "quartz rocks" under ultra-high pressure in earth-quake source point. The observation is possible not only by electronic instruments, but also by anomaly of many sensitive animal behaviour (catfish, eel, fish, . . . , frog, snake, birds, dog and cat,).

It's quite ridiculous that established scientists and the beurocrat authority has been neglecting the serious utilizable facts.

① Dynamics of Earth-quake the introduction :

Earth-quake is stimulated by **continental drift** on global surface in ultra-long term. The degree of drift is extremely slow as few cm in a year, although the necessary energy for drift is far beyond than any big nuclear weapon. After all, the huge energy become extremely hazardous us on drifting land. It is caused by earth kernel (**nuclear fusion reactor**) of ultra high temperature and pressure. It is similar with boiled liquid flow in hot kettle. Then each continents are to collided with each other at their boundary (**earth quake source points**) in which pressure conflicting is ultra high so as to crash rock. Then those conflicting regeon are usually, entirely, and superficially calm, but sudden and abruptly to cause catastrophe (**stratum sliding**) to seek spatially stable rearrangement of continents configuration in pressure conflicting between opposite continents.

② Rocks under the urtra high pressure stimulates propagation of underground current with voltage and radiated electromagnetic wave in air.



—Piezoelectric Effect—

Electronic lighter is a high-voltage generator by mechanical hitting on dielectric stone. In the left figure, zone with **positive charge** could generate outward currents to zero volt zone, while zone with **negative charge** generate inflow current.

③ The Researcher on Earthquake Prediction by Anormal Behaviour of Catfish:

<<http://catfish.ess.sci.osaka-u.ac.jp/>>

④ Obseving Anormal Behaviours of Animals:

(1)Electrical Response of Lateral Line Nerve in Fishes(Catfish & Eel):

<<http://jgp.rupress.org/cgi/reprint/16/4/695.pdf>>

Lateral line nerve of Catfish is electirically **very sensitive** to detect under ground current stimulated by **Piezoelectric** rocks at source point of earthquake. They seem to become uneasy and to rampage by the current. These behaviours tell us possibility of earthquake within few days. This fact has been wellknown since the past by legends in Japan. Also few heretical scientits declare supporting the facts. On the other hand, it is also absurd reality that established scientist groupe has been neglecting the fact.

(2)It is known that an ultra high pressure on rock(especially granite contaning much of quartz) under the ground would discharge by experimets.

<<http://www.madsci.org/posts/archives/2000-10/972014110.Es.r.html>>

<http://www.asahi-net.or.jp/%7Exr2t-fksm/mihama-ghp/taten/yomikata/zisin_hajimete.htm>

(3)On Feb/4 in 1975, many facts on anormal behaviours of many animals had been reported to **the China's State Seismological Bureau** by many peoples in Liaoning Province in China. Then they had judged those symptom imminent earthquake to declare and to order **millilon of people** emergent evacuation. Thus they could succeed to have mimized human suffering even in big earthquake as magnitude **7.3** and in many damage in buildings. Those reports are following.

*few **snakes** on snow covered road, crawled out from cellar of winter sleeping.

*flying and shouting **kitchines** of groupe in the sky.

***goose** flying round and crying in a shrill voice.

*swarm of **rats** scurry about.

*there were full of water from deep **wells**, water quality changes.

(4)Phisical and Chemical Symptoms of Imminent Earthquake:

*electro-magnetic wave radiation into air, (chargeable) clouds pattern change,

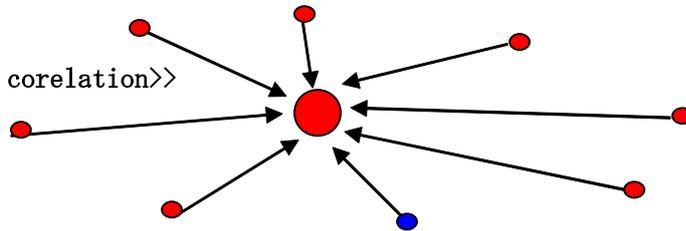
*discharging current with luminescence to air from ground,

*chemical gas component change in the air. Dr Giampaolo Giuliani predicted the earthquake in Apr. 06, 2009 in Italy with Radon gas detection.

⑤ The higher accuracy prediction for taking statistical correlation method:

Catfish and Eel must be placed in small pond in electrically connecting with conductive ground to detect **underground current** stimulated by earthquake source point. It is an easy and low cost method of higher reliable and predictable detector. In order to make higher accuracy for prediction, you should take **ensemble averaging method** to reduce noisy information. That is, the observation must be **parallel and collective** to make forecasting more evident by statistical correlation of reliable accuracy. That is, if many of catfishes or eels located in each different area be shouting **simultaneously**, they would never tell lie and make mistake. It is a centralized communication network with many detectors.

<<the concept statistical correlation>>



The catfish detection method as scientific research has not yet become full dress even in frequent earthquake nation of Japan. Why not ???. The established scientists of bureaucrat with high cost of business company will not agree to abandon their non-effective traditional seismological method.

⑥ Precedent P wave detection method:

Earthquake wave propagation has two mode called **longitudinal P wave** of nothing disastrous and **transversal S wave of disastrous**. Then P wave propagation velocity of **5~7km/sec** is higher than that of S wave of **3~4km/sec**, so you could detect P and predict imminent disastrous S wave before its coming. The defect of method is small time interval as few second in case of near source point.

However the method has been employed in recent years as an emergent alarming system in Japan. Then note that the method presented in ⑤ could have sufficient time of **few days** to refuge for saving life.

—Reference Sites—

(1)Earthquake prediction From Wikipedia,

<http://en.wikipedia.org/wiki/Earthquake_prediction>

(2)Catfish and Earthquakes in Folklore and Fact:

<<http://web-japan.org/nipponia/nipponia33/en/animal/animal01.html>>

(3)Can Animals Sense Earthquakes?.

<http://news.nationalgeographic.com/news/2003/11/1111_031111_earthquakeanimals.htm>

(4)Earthquake warning research:

<<http://www.earthquakewarning.org/>>

(5)Earthquake Prediction Research Center, Tokai University in Japan.

<<http://www.sems-tokaiuniv.jp/namazu/>>

(6)**Catfish** the very sensitive with low intensity electric field.

They are reported to be sensitive as $5\mu\text{V/m}$ of frequency $1\text{Hz}\sim 30\text{Hz}$.

It is a magnitude of few kilometer distance from 1.5 volt electric cell in a big lake as Biwa-ko (670.25km²).

<http://www.sems-tokaiuniv.jp/namazu/hajimete/hajimete_0.htm>:

(7)But Dr Ikeya reported **Eel** is more sensitive as $0.5\mu\text{V/m}$, while **Catfish** is $5\mu\text{V/m}$.

<http://www.sems-tokaiuniv.jp/namazu/hajimete/hajimete_0.htm>: