Karnataka Forest Department
Office of the Chief Conservator of Forests, Dharwad Circle, Dharwad.
Forest Campus, Near K.C.Park, P.B Road, Dharwad-580008.

No. A1/GFL/B/S.G.M/Jalligeri/CR-1/20-21/2022-23./143 Date: 02 -05 -2023.

ಗೆ,

ಪ್ರಧಾನ ಮುಖ್ಯ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು,
(ಅರಣ್ಯ ಸಂರಕ್ಷಣೆ) ಮತ್ತು ನೋಡಲ್ ಆಫೀಸರ್ (FCA)
ಅರಣ್ಯ ಭವನ, ಮಲ್ಲೇಶ್ವರಂ, 18 ನೇ ಕ್ರಾಸ್,
ಬೆಂಗಳೂರು.

ಮಾನ್ಯರೆ,

Sub: Diversion of 39.90 Ha (30.70Ha Mining lease and 0.20Ha of Approach Road) of forest land in Sy No.45,49 & 50 of of Jalligeri Village, Kasaba Hobli, Shirahatti Taluka, Gadag District for establishing Sangli Gold Mine in favour of Ramagad Minerals & Mining Limitted, Hospet, Vijaynagar District.

Ref: ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ, ಪ್ರಾದೇಶಿಕ ವಿಭಾಗ, ಗದಗ ಇವರ ಕಚೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ: A4/GFL/FC/RMML/Mining/39.899 Ha./CR-09/2020-21 Dated: 20-04-2023.

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಉಲ್ಲೇಖಿತ ಪತ್ರದನ್ವಯ ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ, ಗದಗರವರು ವಿವರವಾದ ವರದಿಯನ್ನು ಸಲ್ಲಿಸಿರುತ್ತಾರೆ. ಕಪ್ಪತಗುಡ್ಡ ವನ್ಯಜೀವಿ ಅಭಯಾರಣ್ಯವು ಅತ್ಯಂತ ಪ್ರಾಮುಖ್ಯವಾಗಿರುತ್ತದೆ. ಬಯಲು ಸೀಮೆಯಲ್ಲಿ ಇರುವ ವಿಶಿಷ್ಟವಾದ ಅಭಯಾರಣ್ಯ ಇದಾಗಿರುತ್ತದೆ. ವನ್ಯಜೀವಿ ಸಂರಕ್ಷಣೆಯ ಹಿತದೃಷ್ಟಿಯಿಂದ ಸದರಿ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಗಣಿಗಾರಿಕೆಗೆ ಅವಕಾಶ ನೀಡುವುದು ಸಮಂಜಸವಾಗಿರುವುದಿಲ್ಲ.

ಸದರಿ ಅರ್ಜಿದಾರರು ಈಗಾಗಲೇ ಹಲವು ಬಾರಿ ಅರಣ್ಯ ಭೂಮಿಯ ಲೀಸ್‌ಗಾಗಿ ಅರ್ಜಿಯನ್ನು ಸಲ್ಲಿಸಿದ್ದರು. ಅವರ ಅರ್ಜಿಯನ್ನು ಪರಿಶೀಲಿಸಿ, ಈಗಾಗಲೇ ಕಾನೂನು ರೀತಿ ಅದನ್ನು ತಿರಸ್ಕರಿಸಲಾಗಿರುತ್ತದೆ. ನಂತರ ಅರ್ಜಿದಾರರು ಕರ್ನಾಟಕದ ಮಾನ್ಯ ಉಚ್ಚ ನ್ಯಾಯಾಲಯದಲ್ಲಿ ಕಪ್ಪತಗುಡ್ಡ ವನ್ಯಜೀವಿ ಅಭಯಾರಣ್ಯ ಘೋಷಿಸಿರುವ ಬಗ್ಗೆ ಸರ್ಕಾರದ ವಿರುದ್ದ W.P. ಸಂಖ್ಯೆ –24393/2021 ರಲ್ಲಿ ದಾವೆ ಹೂಡಿರುತ್ತಾರೆ.

ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,ಗದಗ ಇವರು ತಮ್ಮ ವರದಿಯಲ್ಲಿ ವನ್ಯಜೀವಿ ಸಂರಕ್ಷಣೆಯ ಪ್ರಾಮುಖ್ಯತೆಗಾಗಿ ಹಲವಾರು ವರದಿಗಳನ್ನು ಸಲ್ಲಿಸಿರುತ್ತಾರೆ. ಮೇಲೆ ವಿವರಿಸಿರುವ ಎಲ್ಲಾ ಕಾರಣಗಳಿಂದ ಸದರಿ ಪ್ರಸ್ತಾವನೆಯನ್ನು ತಿರಸ್ಕರಿಸಲು ಸರ್ಕಾರಕ್ಕೆ ಶಿಫಾರಸ್ಸು ಮಾಡಬೇಕಾಗಿ ಕೋರುತ್ತೇನೆ ಹಾಗೂ ಇನ್ನು ಮುಂದೆ ಸದರಿ ಅರ್ಜಿದಾರರ ಅರ್ಜಿಯನ್ನು ಸ್ವೀಕರಿಸುವ ಹಂತದಲ್ಲೇ ತಿರಸ್ಕರಿಸಬೇಕಾಗಿ ಕೋರುತ್ತಾ ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,ಗದಗ ಇವರ ವರದಿಯನ್ನು ಈ ಪತ್ರಕ್ಕೆ ಲಗತ್ತಿಸಿ ಸಲ್ಲಿಸಿದೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ,

ಮುಖ್ಯ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,
ಧಾರವಾಡ ವೃತ್ತ, ಧಾರವಾಡ.

ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆ

Karnataka Forest Department

ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳ ಕಛೇರಿ, ಗದಗ ವಿಭಾಗ, ಗದಗ-581203

Office of The Deputy Conservator of Forests, Gadag Division, Gadag - 582103

Phone No: 08372-200289 Email-dyconservatorgadag@gmail.com

A4/GFL/FC/RMML/Mining/39.899Ha./CR-09/2020-21 Date:20.04.2023

To,

The Chief Conservator of Forests,
Dharwad Circle
Dharwad

Sir,

Sub: Diversion of 39.70 Ha. (39.70 Ha. of Mining lease and 0.20 Ha. of Approach road) of forest land in Sy No. 45, 49 and 50 of Jalligeri village, Kasaba Hobli, Shirahatti Taluka, Gadag District for establishing Sangli Gold Mine in favour of Ramghad Minerals and Mining Ltd., Hosapet, Vijayanagara District.
Proposal No.FP/KA/MIN/42366/2019 dated 24.08.2020.

Ref:
1. Your Office letter no:A1/GFL/B/SGM/Jalligeri/CR-1/20-21/2022-23 Date: 08.02.2023
2. E-office File No. KFD/HOFF/A5-1(MNG)/7/2019-FC dated 04.02.2023 from the Office of the Principal Chief Conservator of Forests (Head of Forest Force) Benglore.
3. GOK Letter No. FEE 41 FFM 2021(e) dated 22.09.2021 and 20.01.2023

*****

This is with regard to the letter as under Ref (1) & (2) above wherein the User Agency M/s. Ramgad Minerals and Mining Limited, Hosapete, Vijayanagara District has raised certain objections to the Reports filed by the DCF and CCF in their FC Proposal No. FP/KA/MIN/42366/2019. The objections raised are being replied to as under :

1. The User Agency applied for Reconnaissance survey for which the Deputy Conservator of Forests, Gadag **(DCF)** granted permission. On perusal of the

with the PL areas of the petitioner. The prospecting work which was stopped on 16.07.2010 wasn't permitted again.

3. The petitioner applied for forest clearance for diversion of 39.70 Ha. Of forest in Sy No. 45 and 50 of Jalligeri village of Shirahatti taluka in Gadag district in 2006. The application was processed and was being forwarded to the office of the APCCF(FC), Aranya Bhawan with incomplete documents each time from the Petitioner. The User Agency couldn't furnish details of non-forest land to be given in lieu of the diverted forest land. Meanwhile the **State Board for Wildlife in its meeting on 15.12.2012** decided to constitute the Kappathagudda reserve forest areas as 'Wildlife Sanctuary'. Pursuant to this decision the Sub Committee for State Board for Wildlife conducted public hearing on 21.02.2013 and 22.02.2013 and concluded in its meeting held on 15.03.2013 that Kappathgudda may be declared as Wildlife Sanctuary. Thereafter the PCCF (HOFF) sent his decisive report rejecting the proposal of the petitioner for diversion of the said area for gold mining vide A5(1)MNG.CR.5/10-11 dated 06.05.2013.

Again, in the year 2017 the User Agency applied for forest clearance for diversion of the same area in Jalligeri village of Shirahatti taluka in Gadag district under FCA, 1980 despite the earlier rejection by the PCCF(HoFF). The then **DCF Mr.Yashpal Kshirsagar** submitted a detailed site inspection report which contained a list of medicinal plants, flora and fauna found in the Kappathgudda hills. Not just from the biodiversity point of view, even from ethno-botanical and cultural perspective, the ecosystem is unique, rare and endemic which deserves highest protection under the extant laws and rules and hence the project was rejected. The same was reiterated by the next **DCF Ms. Sonal Vrishni.** The status of the Kapatthgudda forests as the time of application of forest diversion by the petitioner was **'Conservation Reserve'.** However in due course of time during the file movement, the same area was declared as **'Wildlife Sanctuary vide FEE 57 FWL 2019 dated 16.05.2019 by the State Government.** As the guidelines to apply for diversion of forest inside a protected area differed from that of a reserve forest, **the Petitioner withdrew the application for forest diversion vide letter dated 15.06.2019.**

Again in the year 2020 the petitioner applied for diversion of forest land in the same Sy nos. of Jalligeri village, Shirahatti taluka, Gadag district for gold mining vide **Proposal No. FP/KA/MIN/42366/2019.** The then DCF **Shri AV Suryasen** submitted site inspection report dated 04.12.2020 strongly rejecting the said proposal. The same was reiterated and rejected by the CCF, Dharwad on 13.01.2021. Agreeing with the field officers, the **proposal was**

4.3 In the **5th meeting of the State Board for Wildlife held on 15.12.2012**, the members suggested that immediate action must be taken by the Sub-committee of the SBWL to conduct public consultation, and if after consultation the Sub-committee comes to the conclusion in favour of constituting the sanctuary, proposal should be sent to Government for issue of notification to declare 'Kappathagudda Wildlife Sanctuary' without waiting for Board's approval once again. PCCF (Wildlife) expressed that the concerned will be informed to take suitable action in this regard.

4.4 Subsequently **public consultation meeting was held on 21.02.2013 at Dambal under the chairmanship of Shri Anil Kumble** and august presence of Shri Maniranjan Tondada Siddalinga Mahaswamigalu Dambala and Shri Shivkumar swamygalu, Nandiverimatha, Doni. As can be seen from the proceedings of the meeting, both the Seers, as well college professors, environmentalists and wildlife lovers expressed strong support to the declaration of the reserve forest area as Wildlife Sanctuary. **What the petitioner claims as strong opposition is from the encroachers and unauthorised grazers who would have been liable to be prosecuted even when the forests were reserve forests. Hence objections from encroachers cannot be considered as tenable and acceptable.**

4.5 **The Sub-committee of State Board for Wildlife in its meeting held on 15.03.2013** expressed in these words: ' *Regarding the proposal for declaration of Kappathgudda Wildlife Santuary, Sri Anil Kumble stated that the sub-committee had taken up public consultation at Dambala village of Mundargi Taluka on 21.02.2012. He stated that the said meeting started in a cordial atmosphere and local political and religious leaders supported the cause of wildlife conservation and the declaration of KWLS. He further stated that later on when public were requested to share their views/opinion, some of the people who were present in the audience and appeared to have vested interests, spoke one after the other with a pre-determined mindset. Their stress was on the issues like encroachments, release of tiger and other animals by the Forest Department in the proposed area, instead of only putting forth their views, started arguing and did not allow other members of audience, who were supporting the cause of conservation, to express their views. Despite repeated requests from the leaders and officers to maintain decorum, they were seen to be very determined to disrupt the meeting itself. One person, who seemed to be under intoxication, reached the dais and joined 3-4 people in disrupting the public hearing. At this stage police and forest officials intervened and tried to restore order. However, nothing further could be heard in the din.*

Sri Sanjay Gubbi added that some of these issues, raised by 3-4 people, appeared to be stage managed by vested interests who have scant respect for wildlife, ecology and environment. He further added that such behaviour of a

It can be seen from the letter and spirit of proceedings that the Government was serious about according additional protection to the Kappathagudda forest area, however they were deliberating on the legal status of the protection.

6. Subsequent to the proceedings of the **8th Meeting of the State Board for Wildlife** held on 11.09.2015, the Government of Karnataka issued a notification vide FEE 291 FWL 2016 dated 19.12.2015 under Section 36A of the WLPA 1972 declaring an area of 17.872.48 hectares of reserve forest as **'Kappathgudda Conservation Reserve'.**

Its mandatory on the part of the Government to conduct public consultations to declare any area as Conservation Reserve. Hence the notification was withdrawn due this legal error so that public consultations could be held.

7. It was observed in the **9th Meeting of the State Board for Wildlife held on 31.08.2016** under Agenda 15 which said 'Member Secretary submitted to the Board, that in the background of the resolution of the Board's 8th meeting held during September 2015, the Government notified Kappathagudda Reserve Forest as 'Kappathgudda Conservation Reserve' under Section 36-A of Wildlife (Protection) Act, 1972. During the months of May and June 2016, the Hon'ble Chief Minister (Chairman of the Board)/ Forest Minister (Vice chairman of the Board) received representations from the public / organisations of Gadag district submitting objection for having notified Kappathagudda reserve forest as the Conservation Reserve without going through the mandatory process / provisions like the holding of public hearing.....In the background of these details, the subject was placed for due deliberation and a decision.

8. The Board considered this issue in its entirety and resolved to withdraw the notification notifying Kappathagudda Conservation Reserve under Section 36A of WPA 1972. **However it was resolved to hold public consultations / hearing afresh and outcome of this could be considered by the Board.**

9. Subsequent to the decision in the meeting of the SBWL, the notification No. FEE 291 FWL 2015 dated 19.12.2015 was withdrawn vide FEE 291 FWL 2015 dated 04.11.2016 so that fresh public consultations can be conducted.

10. The PCCF(WL) and Chief Wildlife Warden instructed the CCF, Dharwad Circle, Dharwad and DCF, Gadag (T) Division, Gadag to conduct public hearing immediately in Gadag involving Hon'ble member of the legislatures, all stakeholders, local public representatives, NGOs, interested public, Zilla/Taluk/Gram panchayats, head of the Thontadarya Mutt and other general public of the Gadag district vide his letter No. PCCF(WL)/D/CR-26/2010-11 dated 19.11.2016.

Kappathagudda reserve forests is unique as the vegetation in the area has many medicinal plants and it is worth preserving the same for eternity. All the members unanimously suggested to declare the entire 300 sq. kms of Kappathagudda reserve forest as Kappathagudda Wildlife Sanctuary. The board resolved in favour of proposal to declare entire 300 sq. kms area of Kappathagudda RF as Wildlife Sanctuary. Detailed proposals with draft notification had to be submitted to the Govt. for declaring the forests of Kappathagudda as Wildlife Sanctuary, under Sec-26 A of WLA, 1972

14. ***The Government of Karnataka declared the Kappathgudda forests as 'Kappathagudda Wildlife Sanctuary' vide FEE 57 FWL 2019 dated 16.05.2019.***

Apropos the submissions of the UA under 'RMML submissions for supporting granting of the Forest Clearance' in Page No. 4 of 12 :

15. It is true that several gold mines existed in the Kappathgudda forests in yester year. The gold fields were active from 1901 to 1911 involving nearly 50 odd companies up to the world war. Hutti Gold Mining Company abandoned the mines in 1994 due to high carbon and sulphur content in the ore and the excavation become uneconomical. Low Fe-grade iron ore was mined in the Doni forest area but from 1999-2000 onwards none of the leases have been renewed.

    The complete area was abandoned without proper mining closure and hence it was highly erosive. However the area is now under green growth and showing signs of ecological succession. Wild animals have begun to be sighted in the earlier mined areas and hence the forests are recuperating.

    The abandoned tunnels which were used for gold mining, have now become hide-outs and breeding places for animals which use sub-terranean ecosystems like caves, limestone karst areas and found only in such habitats. Different species of bats, insects, reptiles, rusty spotted cats etc. have been found in these tunnels.

    Recently a team of scientists from SACON, Coimbatore Dr. Goldin Quadros and Dr. Shirish Manchi who is an expert on sub-terranean ecosystems visited these tunnels and found many deep aquifers and wells which are now critical for ground water recharge. Any damage caused to these structures will affect the surface water table enormously. The report is attached for your kind perusal.

16. **The Hon'ble Supreme Court of India in its order dated 04.08.2006 in I.A. 1000 in W.P. 202/95** T.N. Godavarman Thirumulpad Vs. Union of India and Ors. has clearly mandated that no proposal for mining in a sanctuary / National Park or within one km from the boundary of a sanctuary/National Park should

In the background of all the submissions, observations and rebuttal to the UA's letter, it is once again reiterated that the forests of Kappathgudda Wildlife Sanctuary are recouping and rejuvenating under the protection status as a 'Sanctuary'. The wildlife sightings, endemic flora, medicinal plants all have found a safe refuge in this area and it is our prime duty to protect these inter-generational assets to the best of our abilities. Only around 6% of the total land area in Gadag district is forest land out of which several swathes is under encroachment which are to be evicted after a decision is taken for the rejected FRA applications. The rest require high protection and preservation. Forests of Kappathgudda are source of ground water, clean air and endemic flora and fauna and they need to be preserved in their entirety for several generations to come.

Hence the project proposal is once again rejected and submitted to your goodself for your kind consideration.

Yours faithfully,

Deputy Conservator of Forests
Gadag Division, Gadag

Copy submitted to Principal Chief Conservator of Forests (Forest Conservation), Bangalore for kind information.

Deputy Conservator of Forests
Gadag Division, Gadag

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India Delegate, General Assembly, International Union of Speleology (UIS)

President, Biology Commission, International Union of Speleology (UIS)

Member, Pseudokarst Commission, International Union of Speleology (UIS)

Member, Speleological Association of India

Member, Association of Avian Biologists in India (AABI)

Abandoned Gold Mine Report.pdf
635K

Cave ecosystems are usually characterised by the absence of natural light, stable temperature, geophysical structure, high relative humidity, and poor and sporadic food sources (Biswas, 2010; Bernabò et al., 2011). Nevertheless, because the environment is discrete, rigorous, and easily defined, accessible cave habitats provide exemplary systems for conducting biological studies (Culver 1982; Howarth 1993). Hence, they are commonly called natural laboratories.

Caves are usually inaccessible, with several physical and psychological barriers aggravated by the lack of light (Kambesis, 2007). Despite these characteristics, they harbour various unique and sensitive organisms, many of which are cave obligate (Martin et al., 2003). Caves are natural subterranean voids that are large enough for humans to enter. They are formed mainly due to volcanic eruption, erosion, or melting of water beneath or within the glaciers and water or air-filled water.

Subterranean habitats support discrete ecosystems composed of communities that often include species highly specialised to live underground. The cave's physical, geological, and environmental settings rigidly constrain the physical environment. Therefore, it can often be defined with great precision. Unfortunately, these enclosed habitats represent rigorous, high-stress environments for most surface organisms and are difficult for humans to access and study (Moldovan et al., 2018).

Caves form a complex network of habitats with cracks, crevices, branches, and nodes of various sizes, most inaccessible to humans (Campbell et al., 2007). Along with the permanently resident organisms, temporary visitors also use different cave microhabitats that are resulted from variations in cave morphometry, light intensity, temperature, and humidity. Five habitat zones of the terrestrial subterranean habitats are strongly defined based on the physical environment, especially the light intensity, moisture, airflow, gas concentration (mainly CO2), and evaporative power of the air. The five cave zones are; Entrance, Twilight, Transition, Deep, and Stagnant-air zones (Howarth, 1993). However, conventionally a cave, based on the intensity of light in the region, is divided into three different zones viz., Entrance, Twilight, and Dark zone (Culver and Pipan, 2019; Manenti et al., 2015; Biswas, 2010).

The entrance zone (EZ) or euphotic zone is the cave opening and immediate area with sufficient light for vascular plant life to grow. Therefore, it supports the highest number of species as the epigean and hypogean (endogean) flora and fauna occur here. The twilight zone (TZ) or disphotic zone is the region with reduced/dim light and is not influenced directly by external factors. Species diversity is low and mostly composed of waifs from neighbouring zones,

threats, such as climate change and groundwater pollution, are global (Culver and Pipan, 2009). Many caves are attractive as ecotourism destinations and provide unique opportunities to educate the public about unexpected biodiversity values and ecosystem services. The ecosystem services provided by caves include supporting services, i.e., providing habitat to species such as bats, insects, and various micro-flora/fauna and supporting a wide array of biodiversity. Caves are also known to provide cultural services (recreation, educational, aesthetic) and provisioning services (water availability, groundwater recharge) (Medellin et al. 2017).

Cave science or Biospeleology is still in its infant stage in India. The cave fauna of many countries is well studied and understood up to a significant level. However, India does have meagre information about its cave fauna. Except for a few random cave faunal explorations, collections, and descriptions, a detailed survey of cave fauna is not conducted across the country. Other than the documentation of cave fauna from a few caves in the states of Meghalaya, Chhattisgarh, Andhra Pradesh, and the Andaman Islands, we do not have systematic cave-faunal studies steered in India. We need systematic cave floral and faunal studies, including the systematic data collection about species population, distribution and microhabitat, to suggest/recommend conservation strategies to conserve/preserve these vulnerable habitats and species.

Cross-habitat spillover may be the outcome of a process of habitat loss or degradation where the receiving habitat serves as a refuge for organisms. Once surface habitats are lost or degraded, animals can find underground refuge in subterranean habitats, such as caves. The subterranean habitats also include abandoned mines, recognised as human-made subterranean habitats. Because of limited or no interference, the abandoned mines provide unique cavelike habitats to various animals that may later evolve as troglofauna. Caves can work as refuges for the fauna in landscapes where the native vegetation cover surrounding them was degraded. Therefore, habitat degradation on the surface should be a key variable when characterising cave ecosystems for conservation prioritisation and offset planning. Habitat degradation causing a cross-habitat spillover effect highlights the importance of maintaining the connection between subterranean habitats by the surface, especially large caves and other subterranean habitats.

Recently, based on the request from the Deputy Conservator of Forests (DCF), Gadag, scientists from the Salim Ali Centre for Ornithology and Natural History (SACON), Coimbatore visited Gadag for providing technical consultation on environmental matters.

This Abandoned Mine had approximate dimensions of 3 to 4 meters wide and the similar height. Unfortunately, though the Mine is extended with several branching tunnels, we accessed two tunnels one was up to around 40 meters straight tunnel and an additional branch of around 85 meters, which was further branched to extend several meters (surely > 25 meters). The main tunnel of approximately 40 meters ended with a long cliff and a sinkhole of around 2 feet diameter at 10-12 meters in height. Also, at the same place, the verticle trench of around 15 meters was located, which was further filled with crystal-clear groundwater. Part of the trench on its way down was partly filled with clastic sediments (fallen rocks).

The 85-meter-long tunnel was horizontal and accessible with some wet ground and shallow water ditches. These ditches supported the amphibian fauna and several micro and meio-fauna that could not be seen with the naked eye. The water on the floor was supported with the organic matter from the Bat (Chiroptera) species hanging on the roof and dropping their guano. We also encountered other fauna in this subterranean habitat (Table 1). One of the significant findings was the usage of this habitat by the Rusty-spotted Cat (*Prionailurus rubiginosus*). We recorded the pug marks and a dead individual of the species. As the species is included in the Schedule-I of the Wildlife Protection (Act), 1972, the Karnataka Forest Department Staff collected the dead individual for the further official process. After 80-85 meters in length, the tunnel branch had a sinkhole of approximately 1.5 meters in diameter at 6-7 meters in height. Just close to the bellow sinkhole, the dead Rusty-spotted Cat was encountered. As we witnessed pugmarks of the species while exploring the place, we were sure that the individual was not accidentally inside the cave. Also since the individual was found dead without any external injuries, we speculated that it neither fell through the sinkhole. Later the postmortem report confirmed that the individual died because of an infection in the gastro intestine. A dead, half-digested cave-dwelling bat was found in the Rusty-spotted cat's gut. With deeper ditches, the tunnel continued for several meters (> 25 meters), which we could not survey because of a lack of caving gears and limited time. However, we believe that the further spaces have groundwater, which might serve as a unique subterranean wetland habitat for several aquatic fauna to be discovered and documented.

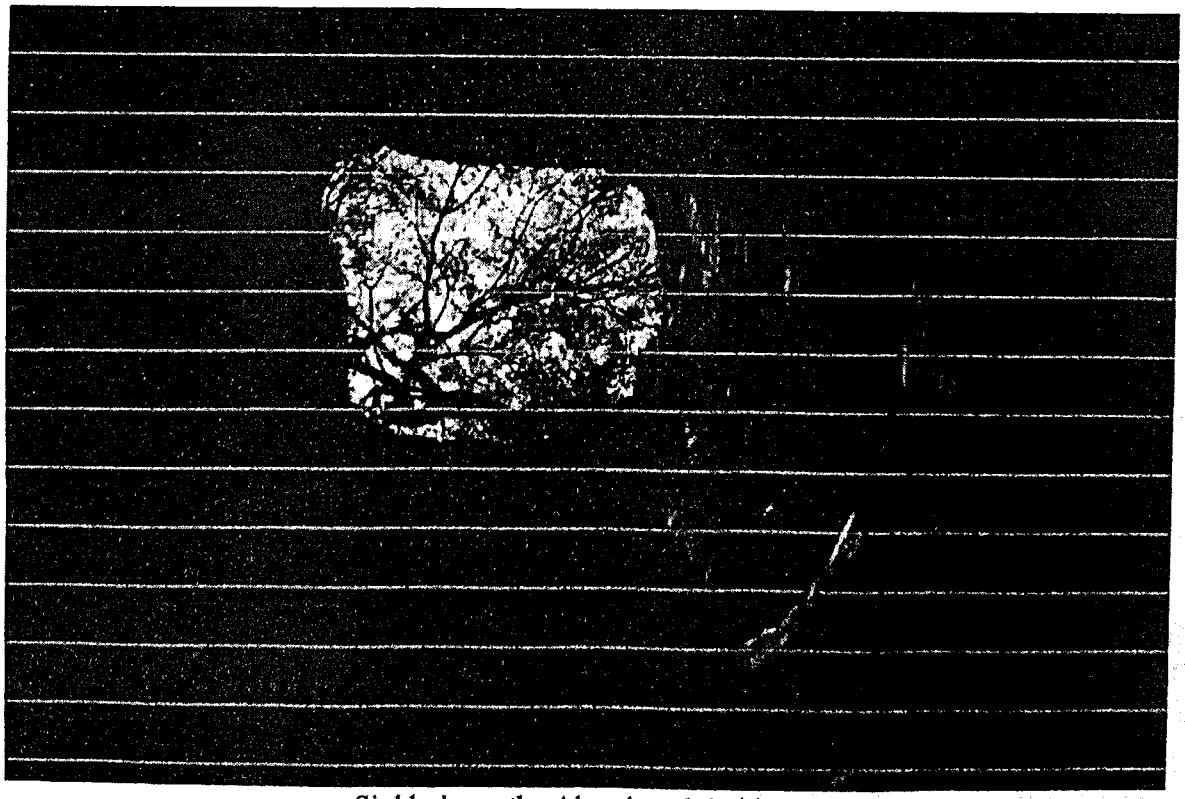
Man-made Subterranean Habitat / Abandoned Mine – 3

(Location: Sy No 55 of Kablayatkatti Forest , Gadag Range)

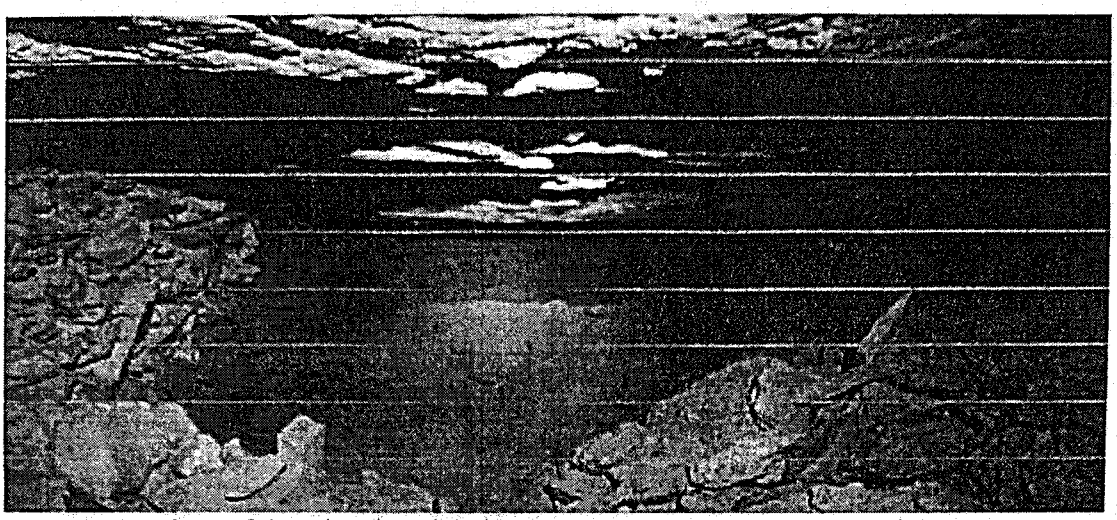
Table 1. Animals encountered in the various Abandoned Mines visited on 29th March 2023.

Sr. No.	Animal encountered		Sites		
	Common Name	Scientific Name	Abandoned Mine 1	Abandoned Mine 2	Abandoned Mine 3
	Rusty-spotted Cat	*Prionailurus rubiginosus*		+	
	Indian boar	*Sus scrofa*			+
	Indian crested porcupine	*Hystrix indica*		+	+
	Lesser False Vampire Bat	*Megaderma spasma*			+
	Horseshoe Bat	*Rhinolophus spp.*	+	+	
	Leaf-nosed Bat	*Hipposiderous spp.*	+	+	+
	Mouse-tailed Bat	*Rhynopoma spp.*		+	
	Common Indian Tree Frog	*Polypedates maculatus*		+	
	Toads	*Bufo spp.*		+	
	Frogs (2 types)	*Unidentified spp.*		+	
	Spiders (3-4 types)	Arachnedae *spp.*	+	+	+
	Moths (4 types)	Lepidoptera *spp.*	+	+	+
	Crickets (2 types)	Orthoptera *spp.*	+	+	+
	Cochroach (2 types)	Blathodae *spp.*			

Exploring the Abandoned Gold Mine

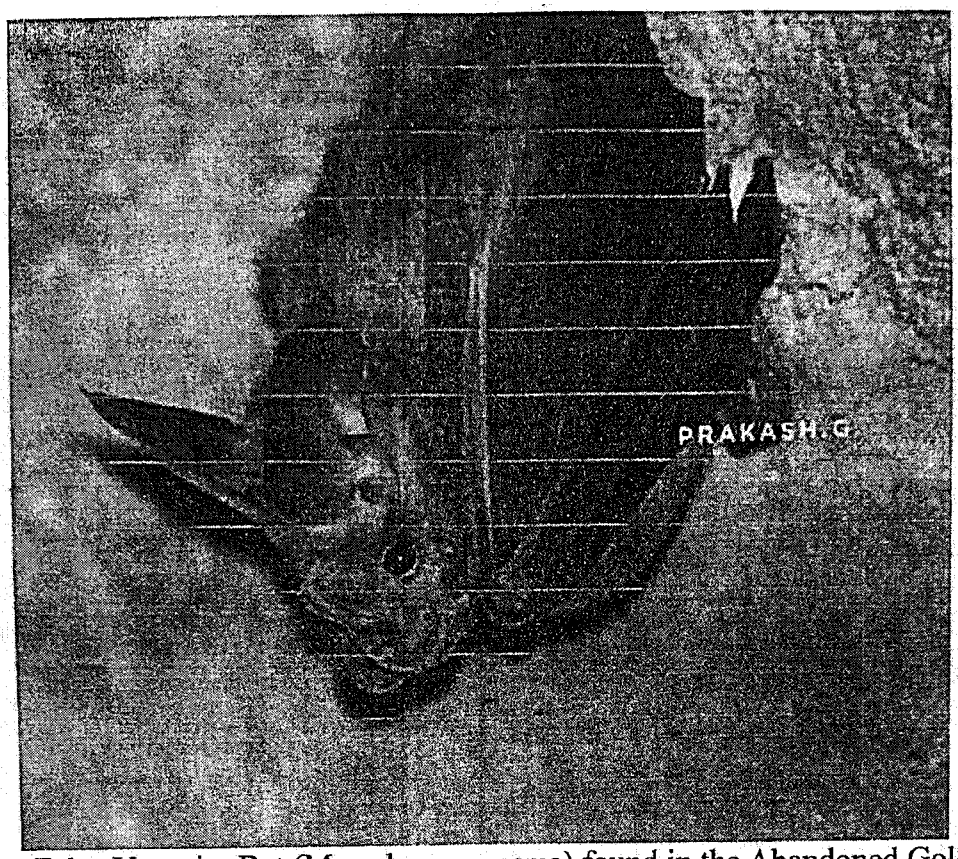


Sinkhole on the Abandoned Gold Mine

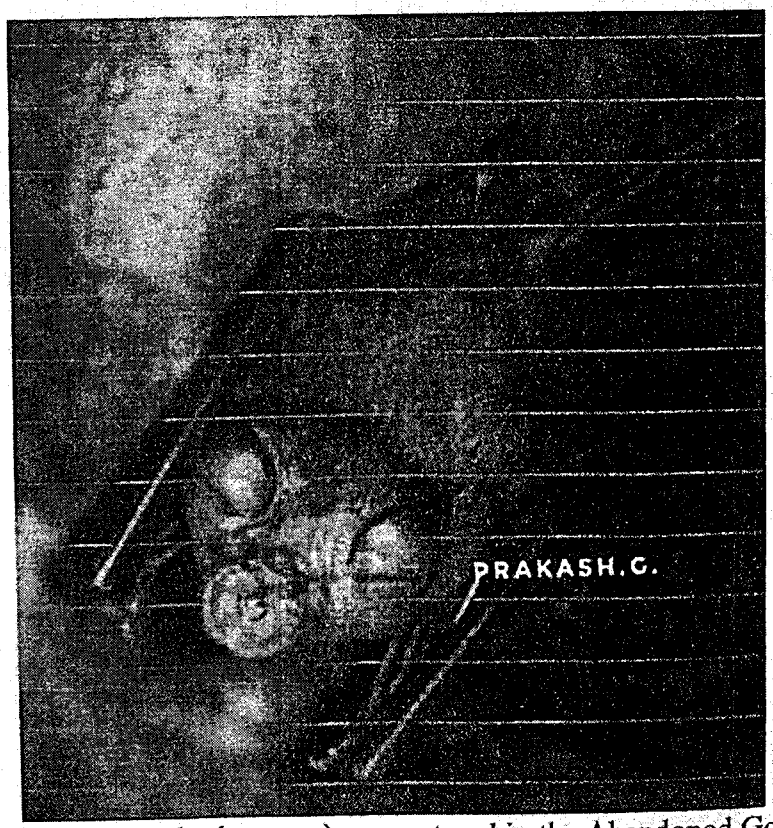


Lower portions of the Abandoned Gold Mine act as spaces for the groundwater storage

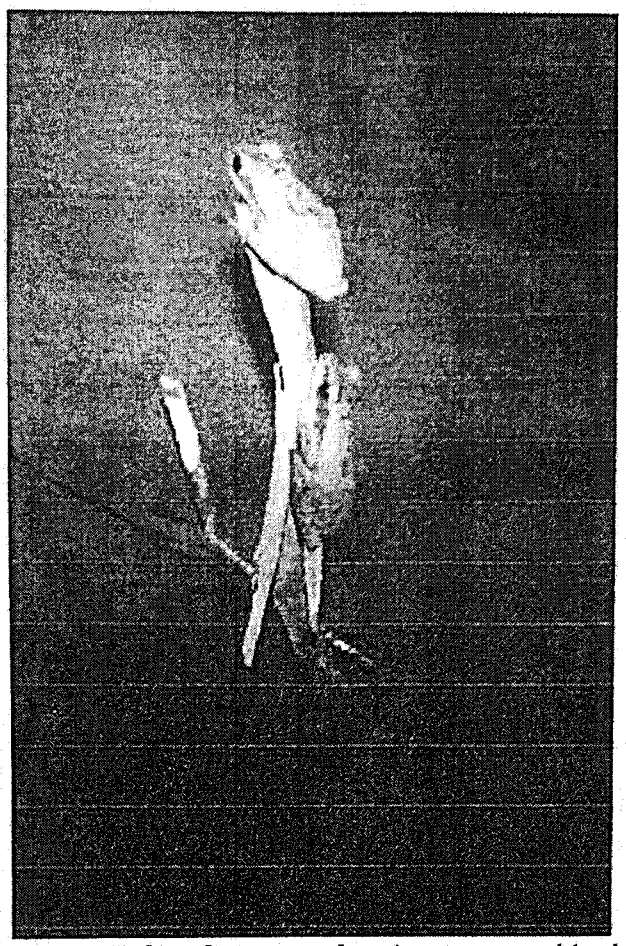
Dead individual of the Rusty-spotted cat found in the Abandoned Gold Mine



Lesser False Vampire Bat (Megaderma spasma) found in the Abandoned Gold Mine



Horseshoe Bat (Rhynolophus spp.) encountered in the Abandoned Gold Mine



Common Indian tree Frog (*Polypedates maculatus*) encountered in the Abandoned Gold Mine

Toad (Buffo spp.) encountered in the Abandoned Gold Mine