

## Analysis of 2017 Rabies Suspected Infectious Animal in Riau Province

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### INTRODUCTION

Known Rabies cases in Indonesia started since Dutch colonialism and firstly reported by Schoorl (1884) in Jakarta on horse. Then cases on buffalo in Bekasi by Doubletree Esser (1889), and on dog found by Penning (1890). While the case in humans known by de Haan (1894) in Cirebon. In mid 1900s, the disease has spread progressively to variety of provinces which historically rabies free regions such as, the West Sumatra, Central Java and East Java (1953), North Sumatra and North Sulawesi (1956), South Sulawesi (1958), South Sumatra (1959), Lampung (1969), Aceh (1970), Jambi and Yogyakarta (1971), Bengkulu, Jakarta and Central Sulawesi (1972), East Borneo (1974), Riau (1975), Central Kalimantan (1978), South Kalimantan (1983), and Flores Island (1997). In early 2000's the spreading extends to Ambon and Seram Islands (2003), Buru Island (2004), Halmahera and Morotai (2005) Ketapang (2005), Bali Island (2008), and then to Bengkalis and Rupid islands in Riau Province (2009). In 2010 it also spreads to Nias and Saumlaki Islands. Java island hrabies-free ad been considered became Rabies-free region in 2004, nevertheless outbreaks reappeared in Garut (2005, 2007), Tasikmalaya (2006) and covering most of West Java starting 2008.

Whilest Rabies disease firstly found in Riau province in 1975, but from 1976 until 1981 no case reported, then the case spread out again since 1982 mostly in Riau mainland province except Indragiri Hilir district. All small islands along east side of Sumatra still stated as Rabies-free region, later the case found on Indragiri Hilir district, and more recent outbreak of rabies also occurred on Rupid and Bengkalis islands starting 2009.

During 2017 there were 241 biting cases by Rabies suspected infectious animal in Riau province.. Based on distribution of biting cases, the highest occurrence is in Pekanbaru 180 cases (75,63%), then Kampar 52 cases (21,85%) and one each are in Kuantan Singingi, Bengkalis, Indragiri Hulu, Rokan Hilir, Rokan Hulu and Siak.

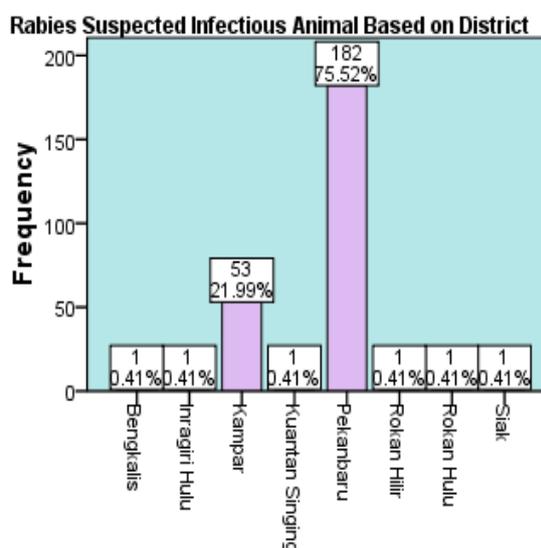
### MATERIALS AND METHODS

Data was collected from Rabies observations book and laboratory diagnosis on Animal Hospital Unit (UPT RSH) - Livestock and Animal Health Services of Riau Province for 2017 records, covering both animal died during observation and the one killed for safety. Data is processed using SPSS 16.0 for Windows tool.

Rabies examination testing in UPT RSH was done using Fluorescence Antibody Technique (FAT). If the result of FAT is negative, the specimen is sent to Desease Investigation Center-Bukittinggi for confirmation test using FAT; if still negative then followed by biological test against mice. If the result still negative then final diagnosis is negative. While if FAT examination results in UPT RSH is positive the case is closed.

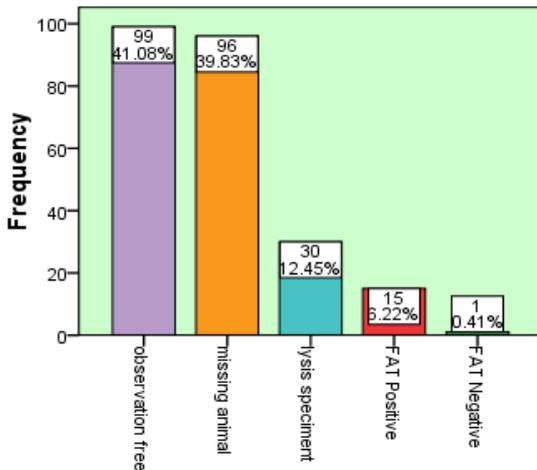
### RESULT AND DISCUSSION

From 2017 data recording in Riau Province it was found 15 out of 241 cases are FAT positives Rabies and mostly cases in Pekanbaru was 182 cases (75,5%), then in Kampar 53 cases (22,0%) and one each case (0,4%) in Bengkalis, Indragiri Hulu, Kuantan Singingi, Rokan Hilir, Rokan Hulu and Siak



Rabies positive were 15 cases (6.2%), Rabies negatives 1 case (0,4%), missing animal 96 cases (39,8%), lysis speciments 30 cases (12,4%) and 99 cases (41,1%) observation free.

**Laboratory Test (FAT) and Observation Result**



From 15 positive rabies FAT, the highest occurrence is in Pekanbaru with 9 cases (60.0%), 3 cases (20.0%) in Kampar and one each (6.7%) in Siak, Kuantan Singingi and Indragiri Hulu. Only 1 negative Rabies FAT case that was from Kampar

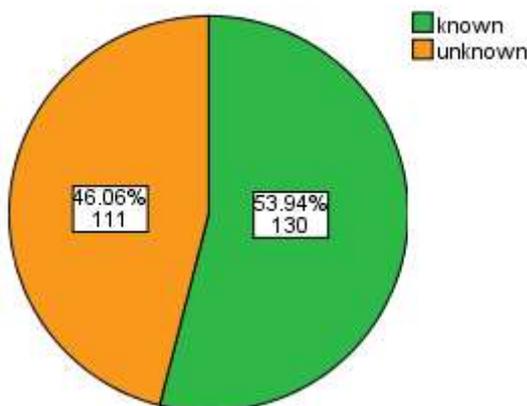
As for 96 missing animals were from Pekanbaru 70 cases (72.9%), Kampar 25 cases (26.0%) and Bengkalis 1 case (1.0%).

For 30 lysis specimens the highest cases were in Pekanbaru 25 cases (83.3%), Kampar 4 cases (13.3%) and Rokan Hilir 1 case (3.3%).

Remaining 99 cases under observation were set free, the highest cases was in Pekanbaru 78 cases (78.4%), Kampar 20 cases (20.6%), and Rokan Hulu 1 case (1.0%).

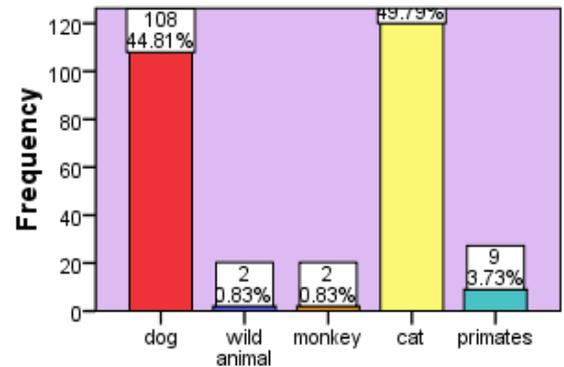
Ownership status of 241 biting case animals, 130 are known (53.9%), while 111 animals (46.1%) are unknown.

**Ownership Status**



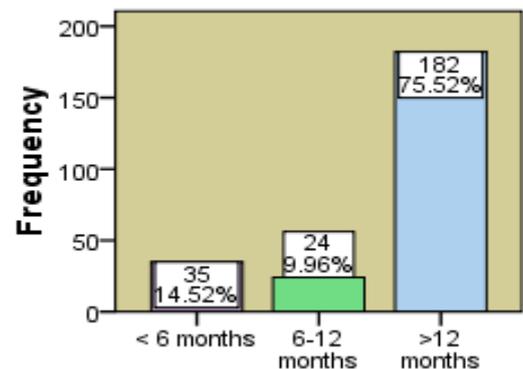
The type of Rabies suspected infectious animal mostly cat 120 cases (49.8%), dog 108 cases (44.8%) monkey 9 cases (3.7%), apes and wild animals 2 case each (0.8%).

**Species**



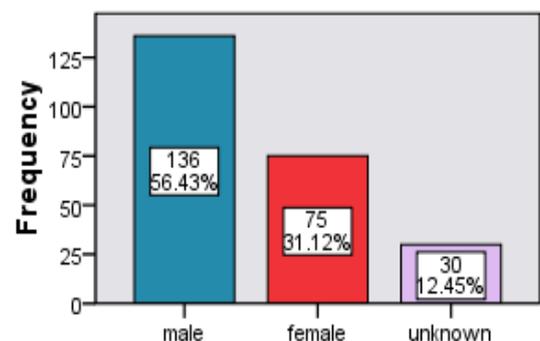
Age level of Rabes suspected infectious animal mostly above 12 months 182 cases (75.5%), under 6 months 34 cases (14.1%) and 6 - 12 months 25 cases (10.4%).

**Animal Age**



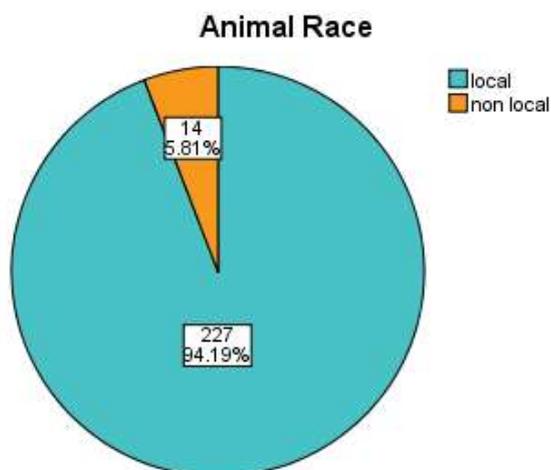
Sex ratio of the biting case animals, mostly male 136 cases (56.43%), female 75 cases (31.12%), and remaining 30 cases (12.45%) were unknown.

**Animal Sex**



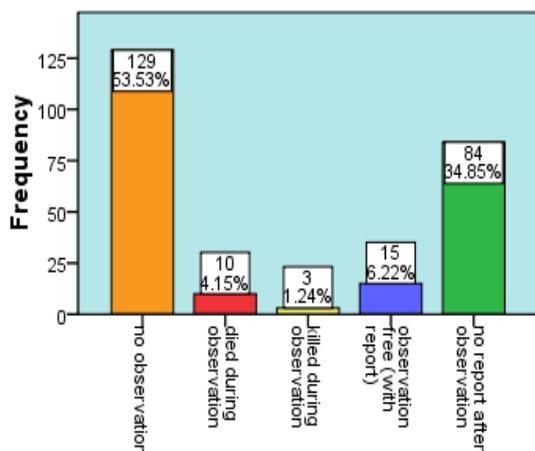
Race ratio of biting case animals, mostly local 227 cases (94.19%) and non local 14

cases(5.81 %) ani



From 241 biting cases of Rabies suspected infectious animals there were 129 cases could not be observed, due to missing animals 99 cases (53.53%) and lysis specimen 30 cases; while remaining 112 cases were observable. From these observable cases, 3 were killed and 10 died during observation, 84 cases (34.85%) were considered observation free due to no follow-up report, and only 15 biting cases were observed at UPT RSH until observation periode with completely report that animals still alive.

Rabies Suspected Infectious Animal Observation



## CONCLUSION

- In 2017 there were 15 positive cases of Rabies from 241 biting cases with ratio 1: 16
- The highest biting cases in Pekanbaru, there were 180 cases (75,63%), then Kampar district 52 cases (21,85%) following one each (0,42%) in Kuantan Singingi, Bengkalis, Indragiri Hulu, Rokan Hilir, Rokan Hulu and Siak.
- The type of Rabies suspected infectious animal mostly is cat 120 cases (49.8%) out of 241 biting cases, then dog 108 cases

(44.8%) monkey 9 case (3.7%),the apes and wild animals each 2 cases

- The animal ownership status from 241 biting cases 130 cases (53.9%) there were known and 111 cases (46.1%) unknown.
- Only 1 case FAT negative that was from Kampar

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