

The Trainability Performance of Sudanese Local Dogs Type in Drug Search



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Mini Review

Dogs have been subjected to a huge selection pressures during domestication and that has resulted in a considerable diversity in morphology and behaviour [1,2]. Most law enforcement agencies around the world use wide range of dog breeds for different tasks. Many researches in the field of dogs training indicated that behavioural differences between dog's breeds are less than behavioral differences within the breed [3,4]. Factor such as gender [5] and dog human relationship [6,7] and confinement conditions [8] play significant role in determining the behavioural traits and the characteristics of the dog, particularly during the first year of the dog's life [9].

Here we report an interesting study carried out by the school of police dogs in Sudan to assess the capability of special local dog type in drug detection and search. Eleven puppies between 6 to 11 months age were collected from North Kordofan area in Western Sudan where these puppies are usually herd camels and sheep. The puppies were enrolled in training program composed of three training phases. These training phases consisted of adaptation

phase (16 weeks) obedience phase (10 weeks) and search and detection phase (10 weeks). The aim of the training program was to enable the puppies adapt and develop social skills in a disciplined and intensive management and to train puppies to search and detect a local drug (Cannabis) which is very common in Sudan.

All puppies were successfully passed the adaptation phase, seven of them succeeded to pass the obedience phase and none of them have managed to pass the search and detection phase. Puppy's performance was scored according to the assessment protocol of the school of police dogs in Sudan with slight modification according to pre-training processes and guidelines of South African police, puppies which fail to pass one phase successfully were not allowed to move to the next phase.

The highest performing individuals (3 males and 3 females) were bred together and seven puppies of their offspring were selected to the same training program. The next generation puppies were successfully passed the first and second training phases and four of them successfully passed the final training phase.



Figure 1: KABABISH DOGS; Local dogs type from North Kordofan area

Adaptation phase assessment was divided into six exercises with total scores (TS) 75, while the mean score (MS) of parent generation was 45 with standard deviation (SD) 7.57, the MS of their off-spring was 61.57 and the SD was 7.06. Seven puppies from the parent's generation managed to pass the next training phase (adaptation phase), The TS was 70 divided into 4 exercises, the MS of parents was 28.57 and the SD was 8.24SD while the performance of their off-spring in the same training phase was 36.14MS with SD 6.56.

Although none of the parent's generation passed the final training phase (search and detection) which consisted of 5 exercises with TS 60, 4 puppies out of 7 ($\approx 57\%$) of their off spring successfully passed the final training phase with MS 40.75 and SD 6.60. The MS for all puppies (7 puppies) was 35.28 and the SD was 8.32.

The study showed potential capability of this local dog type to search and detect cannabis and possibly other types of drugs. In addition this type of dogs is highly adapted to the climate and land topography where this type of drugs (Cannabis) is cultivated and smuggled. On the other hand the parent generation showed greater differences in their ability to adapt to the confined management system compared to their offspring, this was probably attributed to the age of parents when they were introduced to such breeding and management system which supported Mehrkam & Wayne [3] and Foyer [9] findings. The study also showed that these dogs are facing difficulties to focus during the exercises and this can be solved by enhancing their social learning skills, particularly by the use of do as I do method described by Fugazza [10,11].

More studies are strongly recommended to support findings and to further the use local dogs in police operations. Police and other law enforcement institutions in the region, need to pay attention to their local dog breeds as the European breeds are not well adapted to the environment where drugs are cultivated and smuggled [12].

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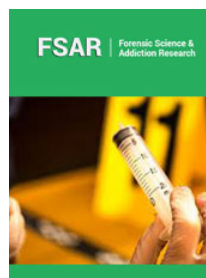
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