

Antibacterial activity of Slovenian honeys against selected species of oral bacterial flora

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Honey ...

- has been recently proposed by several authors as an alternative agent for the treatment of chronic wounds.
- showed antimicrobial activity against several human pathogens in recent studies, mostly due to presence of hydrogen peroxide, flavonoids and high sugar concentration.



Periodontal disease ...

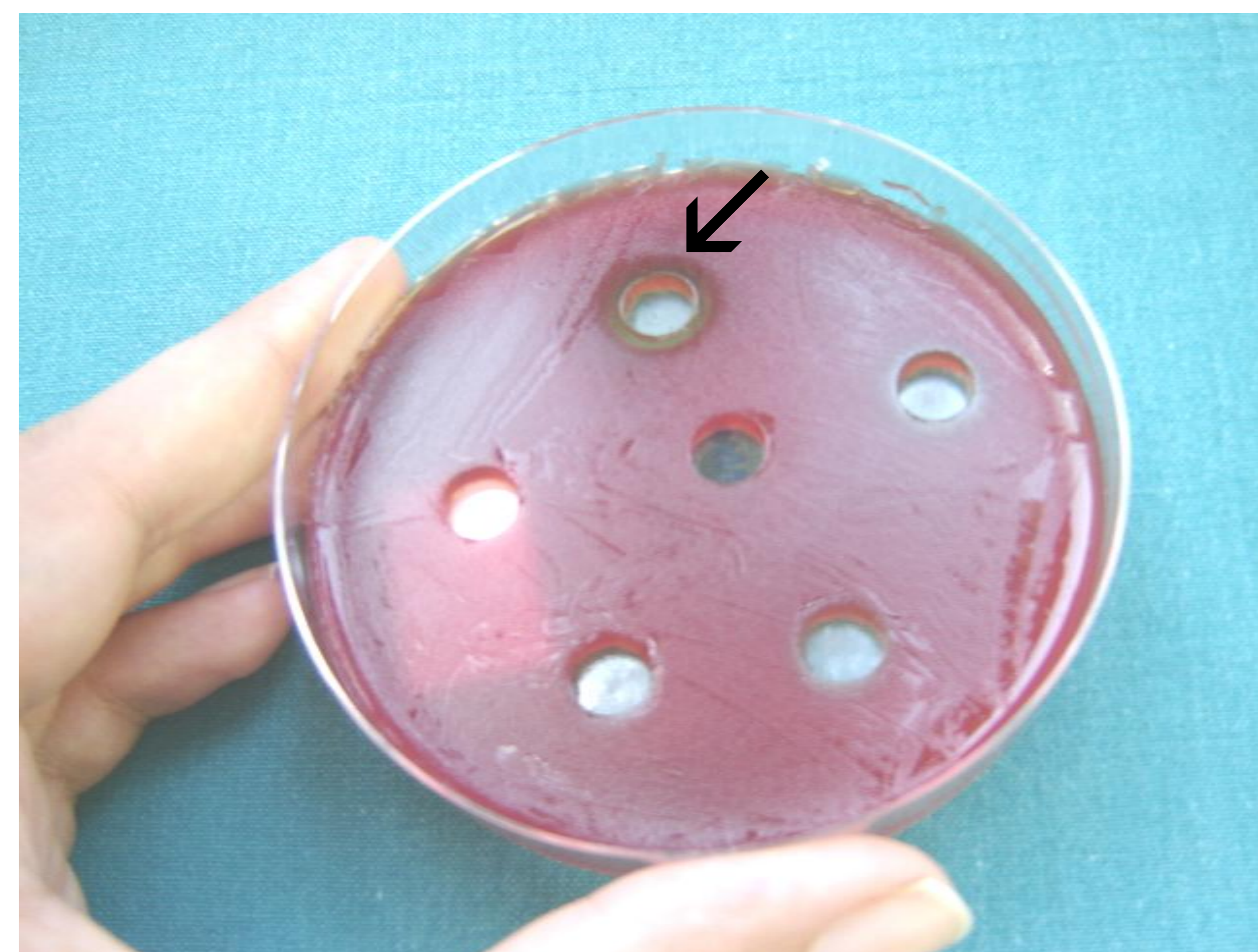
- is a multifactorial infectious disease, in which bacteria in dental plaque (biofilm) play a major role.
- its prevalence is increasing and is the most frequent cause of teeth loss.

Aim of the study

- was to investigate *in vitro* the antibacterial activity of different types of Slovenian honey against selected periodontopathogenic bacteria and oral streptococci.

Methods

- Honey samples were selected to represent a range of 7 different floral sources.
- The agar-diffusion method was used to test the activity of honey against clinical isolates of the following periodontopathogenic species: *Prevotella intermedia*, *Prevotella veroralis*, *Porphyromonas gingivalis*, *Agregatibacter actinomycetemcomitans*, the following species of facultative oral streptococci (*Streptococcus sanguis*, *Streptococcus salivarius*, *Streptococcus oralis* and *Streptococcus mutans*) and an isolate of *Capnocytophaga* sp.



Prevotella veroralis, inhibition zone of fir honey (*Abies alba*)

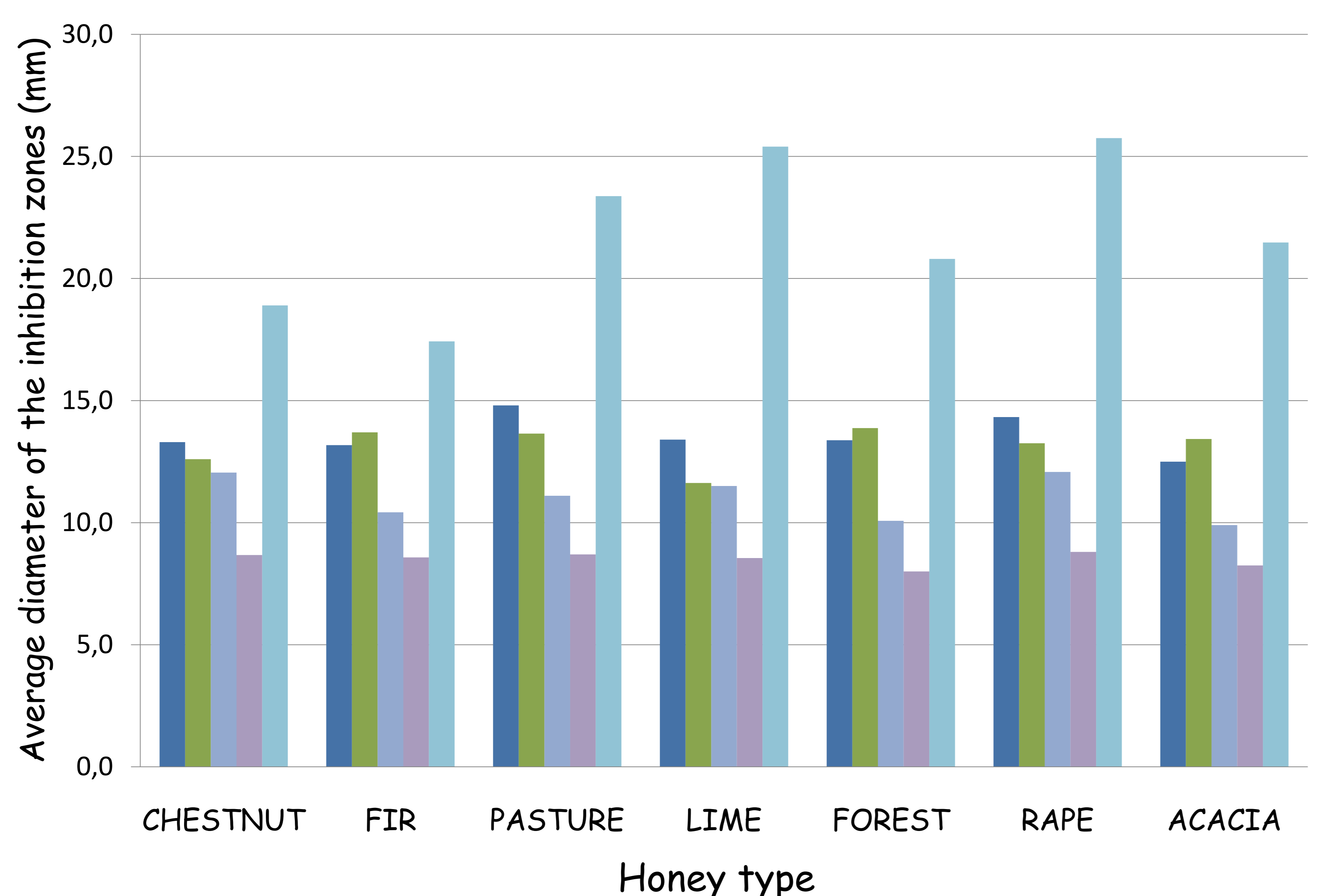


Fig.1: Activity of Slovenian honey against selected anaerobic species of oral bacteria flora

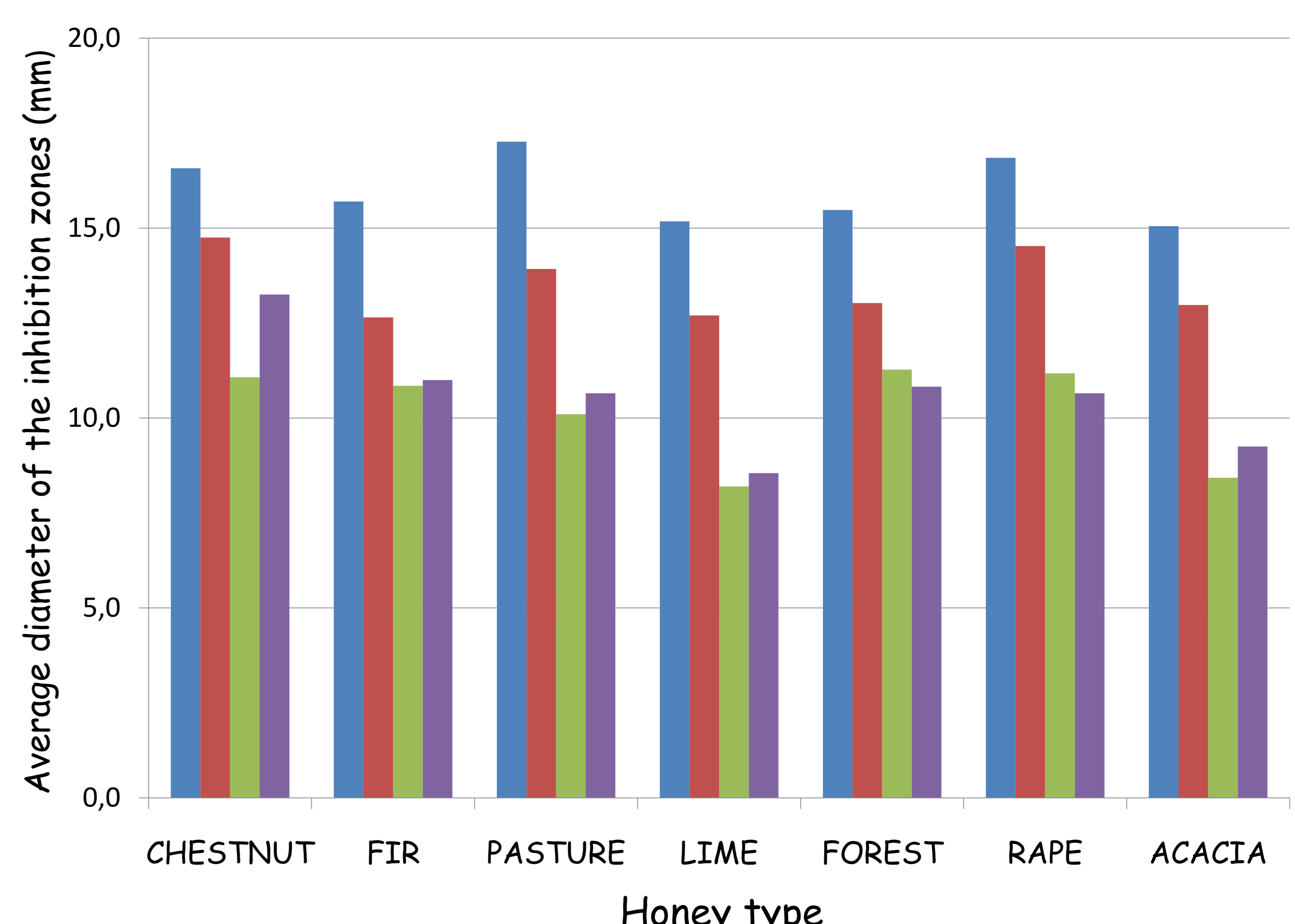


Fig.2: Activity of Slovenian honey against selected oral streptococci

Results & Conclusions

- Average diameters of the inhibition zones of undiluted honey samples are shown in Figure 1.
- Honey samples were less active against oral streptococci in comparison to periodontopathogenic species (Figure 2).
- All honey showed the best antibacterial activity against *A. actinomycetemcomitans*.
- All honey showed the lowest antibacterial activity against *Capnocytophaga* sp.