Peran sput terebralia (gastropoda: potamididae) dalam menyimpan karbon dan mengurai serasah di hutan mangrove Pulau panjang, Serang Banten = Role terebralia snails (gastropods: potamididae) in storing carbon and parse the mangrove forest litter in long Island, Serang Banten

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Abstrak

[ABSTRAK
Penelitian mengenai peran siput Terebralia dalam mengurai serasah mangrove dan menyimpan karbon telah dilakukan pada bulan November hingga Desember 2013. Hasil penelitian kepadatan, Terebralia palustris memiliki nilai kepadatan yang paling tinggi yaitu 25 individu/m2. Sedangkan Terebralia sulcata memiliki nilai kepadatan yang lebih rendah yaitu 15 individu/m2. Kandungan karbon yang tersimpan dalam tubuh T. palustris berkisar antara 16,27?18,89% dengan rata-rata sebesar 17,45%. Sedangkan karbon yang tersimpan dalam tubuh T. sulcata berkisar antara 15,98?17,62% dengan rata-rata 16,87%. Potensi penyimpanan karbon oleh T.palustris sebesar 4374 gr C/m2 dan T. sulcata, berpotensi menyimpan karbon sebesar 2609 gr C/m2. Berdasarkan analisis statistik, terdapat korelasi antara panjang maupun berat T. palustris terhadap total karbon dengan masing-masing P= 0,001 dan P= 0,002. Sebaliknya, pada T.sulcata tidak terdapat korelasi antara panjang maupun berat cangkangnya terhadap total karbon yang dikandungnya dengan masing-masing P= 0,071 dan P= 0,289. Penelitian mengenai penguraian seresah dilakukan hanya menggunakan Terebralia dewasa yaitu, Terebralia palustris lebih dari 5 cm dan Terebralia sulcata lebih dari 3 cm. Dalam pengambilan data selanjutnya, dibuat 30 titik kuadran dengan ukuran 0,25 x 0,25 m yang ditentukan secara acak. Rata-rata persentase penguraian serasah oleh T. palustris adalah sebesar 3,48% ± 0,18 /hari untuk R. apiculata dan 8,28% ± 0,13 /hari untuk R. stylosa. Sedangkan T. sulcata mengurai serasah rata-rata sebesar 4,07% ± 0,12 /hari untuk R. apiculata dan 4,93 % ± 0,15 /hari untuk R. stylosa. Hasil penelitian juga menunjukkan bahwa tidak ditemukan korelasi antara panjang dan berat T.palustris dengan persentase penguraiannya. Begitu pula dengan T.sulcata, tidak ditemukan korelasi antara berat dengan laju penguraiannya. Sebaliknya, terdapat korelasi antara panjang T. sulcata dengan persentase penguraiannya.
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ABSTRACT
Research on the role of Terebralia snails in mangrove leaf litter removal and store carbon was held in November and December 2013. Density of research results, Terebralia palustris has the highest density value of 400 individu/m2 . While Terebralia sulcata has a lower density value is 240 individu/m2. Carbon content stored in the body T. palustris ranged from 16.27 to 18.89 % with an average of 17.45 % . While the carbon stored in the body of T. sulcata ranged from 15.98 to 17.62 % with an average of 16.87 %. Potential carbon storage by T. palustris is 4374 g C/m2, whereas T. sulcata potentially storing carbon at 2609 g C/m2. Measurement of litter removal activity was carried out in mangrove dominated by Rhizophora sp. The research location was located in the intertidal mangrove affected part tide. Research conducted using only adult Terebralia such as, Terebralia palustris more than 5 cm and Terebralia sulcata more than 3 cm. In subsequent data collection, we made 30 points quadrant with 0.25 x 0.25 m size was determined at random.

The average percentage of leaf litter removal by T. palustris is equal to 3,48% ± 0,18 / day for R. apiculata and 8,28% ± 0,13/ day for R. stylosa . While T. sulcata litter parse an average of 4,07% ± 0,12 / day for R. apiculata and 4,93 % ± 0,15 / day for R. stylosa . The results also show that there were no correlation was found between the length and weight percentage T.palustris with decay. Similar with T.sulcata, no correlation was found between the weight of the rate of decay. Instead, there is a correlation between the length of T. sulcata with the percentage of decay.;Research on the role of Terebralia snails in mangrove leaf litter removal and store carbon was held in November and December 2013. Density of research results, Terebralia palustris has the highest density value of 400 individu/m2 . While Terebralia sulcata has a lower density value is 240 individu/m2. Carbon content stored in the body T. palustris ranged from 16.27 to 18.89 % with an average of 17.45 % . While the carbon stored in the body of T. sulcata ranged from 15.98 to 17.62 % with an average of 16.87 %. Potential carbon storage by T. palustris is 4374 g C/m2, whereas T. sulcata potentially storing carbon at 2609 g C/m2. Measurement of litter removal activity was carried out in mangrove dominated by Rhizophora sp. The research location was located in the intertidal mangrove affected part tide. Research conducted using only adult Terebralia such as, Terebralia palustris more than 5 cm and Terebralia sulcata more than 3 cm. In subsequent data collection, we made 30 points quadrant with 0.25 x 0.25 m size was determined at random. The average percentage of leaf litter removal by T. palustris is equal to 3,48% ± 0,18 / day for R. apiculata and 8,28% ± 0,13/ day for R. stylosa . While T. sulcata litter parse an average of 4,07% ± 0,12 / day for R. apiculata and 4,93 % ± 0,15 / day for R. stylosa . The results also show that there were no correlation was found between the length and weight percentage T.palustris with decay. Similar with T.sulcata, no correlation was found between the weight of the rate of decay. Instead, there is a correlation between the length of T. sulcata with the percentage of decay.;Research on the role of Terebralia snails in mangrove leaf litter removal and store carbon was held in November and December 2013. Density of research results, Terebralia palustris has the highest density value of 400 individu/m2 . While Terebralia sulcata has a lower density value is 240 individu/m2. Carbon content stored in the body T. palustris ranged from 16.27 to 18.89 % with an average of 17.45 % . While the carbon stored in the body of T. sulcata ranged from 15.98 to 17.62 % with an average of 16.87 %. Potential carbon storage by T. palustris is 4374 g C/m2, whereas T. sulcata potentially storing carbon at 2609 g C/m2. Measurement of litter removal activity was carried out in mangrove dominated by Rhizophora sp. The research location was located in the intertidal mangrove affected part tide. Research conducted using only adult Terebralia such as, Terebralia palustris more than 5 cm and Terebralia sulcata more than 3 cm. In subsequent data collection, we made 30 points quadrant with 0.25 x 0.25 m size was determined at random. The average percentage of leaf litter removal by T. palustris is equal to 3,48% ± 0,18 / day for R. apiculata and 8,28% ± 0,13/ day for R. stylosa . While T. sulcata litter parse an average of 4,07% ± 0,12 / day for R. apiculata and 4,93 % ± 0,15 / day for R. stylosa . The results also show that there were no correlation was found between the length and weight percentage T.palustris with decay. Similar with T.sulcata, no correlation was found between the weight of the rate of decay. Instead, there is a correlation between the length of T. sulcata with the percentage of decay., Research on the role of Terebralia snails in mangrove leaf litter removal and store carbon was held in November and December 2013. Density of research results, Terebralia palustris has the highest density value of 400 individu/m2 . While Terebralia sulcata has a lower density value is 240 individu/m2. Carbon content stored in the body T. palustris ranged from 16.27 to 18.89 % with an average of 17.45 % . While the carbon stored in the body of T. sulcata ranged from 15.98 to 17.62 % with an average of 16.87 %. Potential carbon storage by T. palustris is 4374 g C/m2, whereas T. sulcata potentially storing

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