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```

clear all
clear global
global a b c d
%Define equation coefficients
a=1; %Hare growth rate
b=0.1; %Hare death coefficient
c=1; %Lynx death rate
d=0.1; %Lynx growth coefficient

t0=1845;
tmax=1937;

Hare0=20
Lynx0=32

[T,Y] = ode45(@lotka,[t0 tmax],[Hare0 Lynx0]);

%Plot
figure(1)
plot(T,Y(:,1),'g')
hold on
plot(T,Y(:,2),'--b')
legend('Hare','Lynx')
title('Predator-Prey model')
figure(2)
plot(Y(:,1),Y(:,2))
title('Phase plane plot')

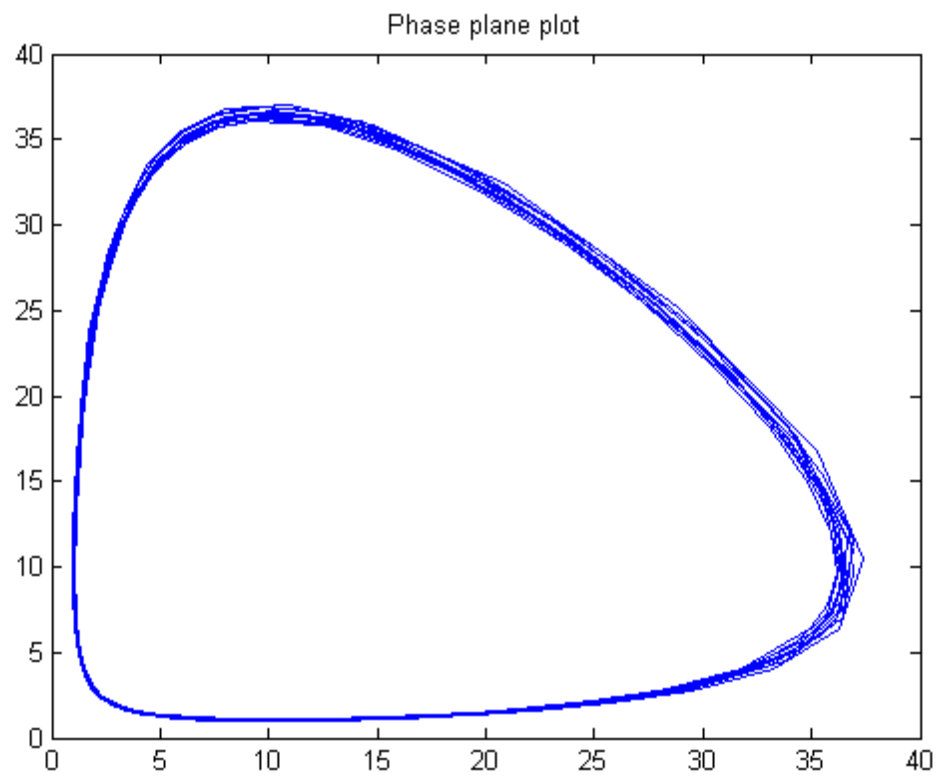
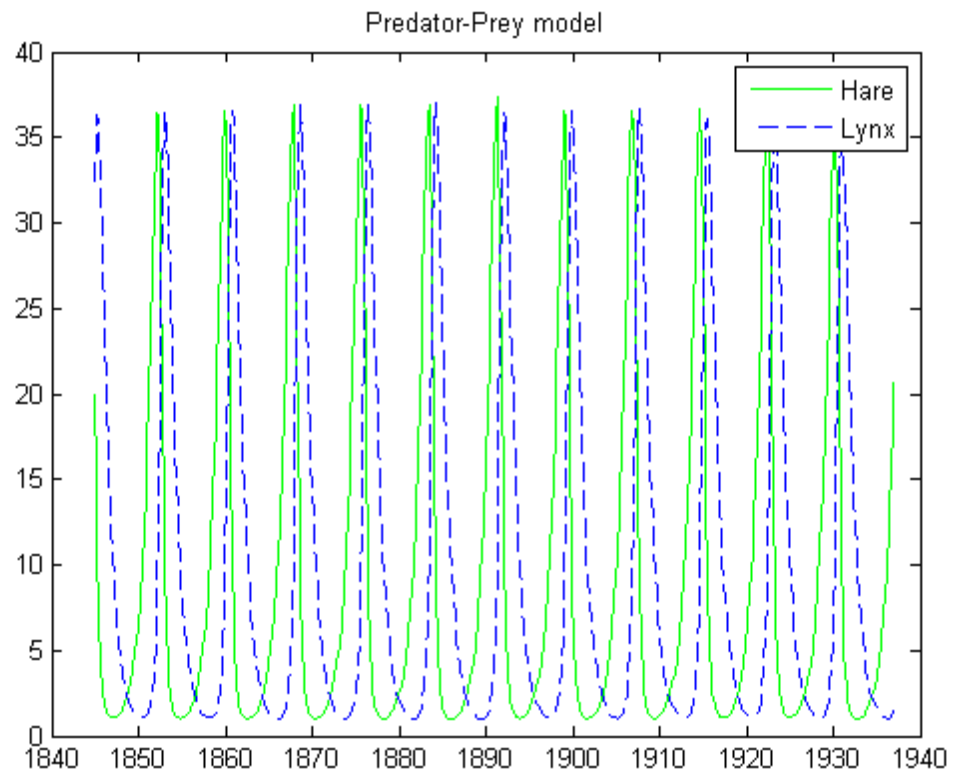
```

*Hare0 =*

*20*

*Lynx0 =*

*32*



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