

## Hot Jupiters!

*Too Hot for Life as we know it.*

Temperature:

2000 degrees

Orbit Period:

1-5 days

Mass:

0.3-10 Jupiters

Thick Clouds:

Molten iron, rock

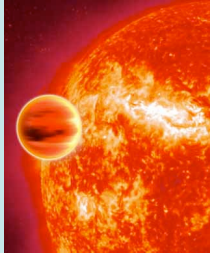
First Discovered:

1995

Discovery Method:

WINKS (Planet Transits across Face of Star)

WOBBLES (Planet's Gravity Tugs on its Star)



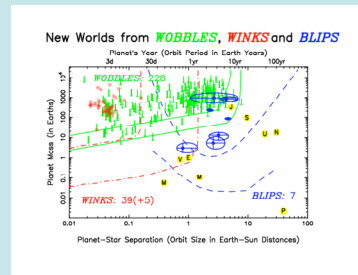
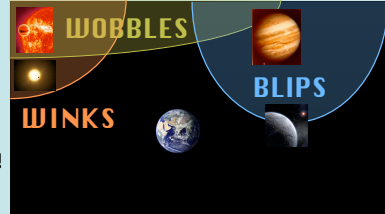
## Good Planets are Hard to Find

Too Hot? Just Right! Too Cool?

Too Big?

Just Right!

Too Small?



## Cool Planets!

*Too Cool for Life as we know it.*

Temperature:

-200° Centigrade

Orbit Period:

3-10 years

Mass:

1 Earth-10 Jupiters

Hard Surface:

Rock/Ice

First Discovered:

2005

Discovery Method:

BLIPS (Planet magnifies background starlight)



## Habitable Worlds ?

*Just Right for Life as we know it.*

Temperature: 0-100° C

If too hot: oceans evaporate.

If too cool: oceans freeze.

Orbit Period: 1 Earth year

Longer for hotter star.

Shorter for cooler star.

Mass: 0.5-2.0 Earths

If too small: atmosphere escapes to space.

If too large: atmosphere crushes surface.

ONLY 1 SUCH PLANET IS CURRENTLY KNOWN.

ARE THERE OTHERS OUT THERE ?

We will know soon.

